Polycom® RSS 4000™ System User Guide

8.0 | 2012 July | 3725-82809-001/A

Trademark Information

Polycom®, the Polycom "Triangles" logo, and the names and marks associated with Polycom's products are trademarks and/or service marks of Polycom, Inc., and are registered and/or common-law marks in the United States and various other countries.

All other trademarks are the property of their respective owners.

Patent Information

The accompanying product is protected by one or more U.S. and foreign patents and/or pending patent applications held by Polycom, Inc.

© 2012 Polycom, Inc. All rights reserved.

Polycom, Inc.
6001 America Center Drive
San Jose CA 95002
USA

No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Polycom, Inc. Under the law, reproducing includes translating into another language or format.

As between the parties, Polycom, Inc., retains title to and ownership of all proprietary rights with respect to the software contained within its products. The software is protected by United States copyright laws and international treaty provision. Therefore, you must treat the software like any other copyrighted material (e.g., a book or sound recording).

Every effort has been made to ensure that the information in this manual is accurate. Polycom, Inc., is not responsible for printing or clerical errors. Information in this document is subject to change without notice.

Contents

1 Getting Started 1

System Overview 1
Installation 1
Unpacking and Installing 2
System Indicators 3
System Initial Configuration 4
Before You Start 4
Obtaining Network Information 4
Obtaining the Product Activation Key 4
System Initial Configuration 5
Before you start 5
(Optional) Installing Multicast Controls 9
(Optional) Configuring the Gatekeeper Settings 9
User Interfaces 10
Working Mode 11
Starting a Recording 11
Playing Back Media Archives 13
Viewing Live Streams 14

2 Using the RSS 4000 Admin UI 15

Basics about the Admin UI 15
Admin UI Layout 16
User Permissions 17
Common Operations 18
List Sorting, Searching, and Refreshing 18
Sizing the Pane 19
System Configuration 19
IP Settings 19
System Time 19
Recording Settings 20
Multicast Settings 21
Before You Start 21
Configuring Multicast 22
Certificate Management 22
Installing the Certificate in the System 23

Viewing the Certificate Details 25
Removing a Certificate 26
Using OCSP to Obtain Revocation Status 26
Client Certification 26
QoS 27
Security Settings 29
Ports 29
Diagnostics 29
Security Policy 30
Service Settings 33
Active Directory 33
Importing Active Directory Users 34
Calendar Configuration 35
Signalling Settings 36
H.323 36
SIP 36
SNMP 37
System Administration 40
Dashboard 40
Signaling Connection 40
Web Connections 41
Hardware Status 41
Login Information 41
Streaming Sessions 41
System Alerts 42
System Information 42
Gatekeeper Status 42
External Server Status 42
SIP Server Status 42
System Configuration Backup/Restore 42
Data Backup/Restore 43
FTP Server Configuration 44
Backing up Image Data 44
Restoring User Data 45
Media Backup 46
System Upgrade 46
To update your system software to version 8.0: 47
Product Activation 47
UI Customization 49
Customizing IVR 49
Customizing Admin UI Logo 49
Customizing Endpoint Menu 50
Changing System Name 50
Customizing the Login Banner 50

System Logs 51
Auditor Actions 51
Email Settings 52
Disk Warning 52
Log Settings 52
Restart and Shutdown 53
User Management 54
Users 54
Viewing Users 55
Adding a New User 56
Managing Users 56
Groups 57
Creating a New Group 58
Managing Groups 58
Virtual Recording Room (VRR) 58
Templates 58
Managing Templates 61
VRRs 62
Predetermined VRR 65
Multipoint Recording 66
Dialing in to a VRR to Start Recording 67
Managing VRRs 68
External Servers 68
Live Streaming Meetings to External Media Servers 68
Transferring Recordings to FTP servers 72
Media Management 73
Archives 73
Viewing Archive Details 74
Playing Back and Downloading Archives 74
Archive Status 75
Modifying Archives 76
Using Dynamic Archiving 77
Quick Code 80
Live Streaming 80
Starting a Live Streaming 81
Viewing Live Streaming Information 81
Viewing Live Streaming Video 81
Live Streaming Resources Usage 82
Multicast 83
Multicast of an Archive or a Live Streaming Video 84
Viewing Multicast Video 84
My Settings 84

3 Using the RSS 4000 TV User Interface 87

Introduction to Main Menu Page 88
Start Recording Using the TV User Interface 90
Viewing Archives Using the TV User Interface 90

4 Using the RSS 4000 Viewer Portal 93

Using the Polycom RSS 4000 Viewer Portal 93
Managing Archives and Live Streams Using the Viewer Portal 94
Reserving Meeting Recordings Using the Viewer Portal 95

Appendix A – Regulatory Notices 99

Important Safeguards 99
Regulatory Notices 99

Appendix B – Telnet and Terminal Commands 103

Before You Start 103
Configuring a Terminal Program 103
Enabling Telnet in Windows 104
Login 104
Command Introduction 105
Help 105
Exit 105
Viewing Device Information 105
Viewing or Setting the System Time Zone 105
Idle Timeout Setting 105
Reboot Device 106
Resetting Password 106
Restoring System Configuration 106
Cleaning Activation Key 106
Telnet Settings 107
Password Modification 107
DTMF 107
File System 107
Ping 107
Network Settings 108
Shutting Down the System 109
Checking Disk Space Usage 109

Index 111

1

Getting Started

This chapter presents an overview of the Polycom® RSS™ 4000 version 8.0, from the initial configuration through recording your first video call, and watching it on an Internet Explorer application. This chapter contains the following sections:

- System Overview on page 1
- Installation on page 1
- System Initial Configuration on page 4
- User Interfaces on page 10
- Working Mode on page 11
- Starting a Recording on page 11
- Playing Back Media Archives on page 13

System Overview

The Polycom RSS 4000 system is a complete recording and streaming server that allows you to record, live stream, and archive video and telepresence calls. The Polycom RSS 4000 system supports the recording of point-to-point and multipoint video conferences, including H.239 content. It can record and archive up to 1080p, and live stream calls up to 720p.

Installation

Follow these rules to ensure general safety:

- Keep the area around the Polycom RSS 4000 unit clean, free of clutter, and well ventilated.
- Choose a suitable location for the equipment rack that will hold the Polycom RSS 4000 unit and is near a grounded power outlet.
- Use a regulating UPS (uninterruptible power supply) to protect the Polycom RSS 4000 unit from power surges and voltage spikes, and to keep it operating in case of a power failure.

Unpacking and Installing

To unpack and install the system:

1. Inspect the package to make sure that it has not been damaged.
2. Open the package and check the items included. The following items should be included:
   - One Polycom RSS 4000 server unit
   - Two power cables
   - Two RJ-45 network cables
   - One DB9 serial port cable
   - A CD
   - A license and a user registration card
3. Take all items out of the package and check to see if any of them is in poor condition.

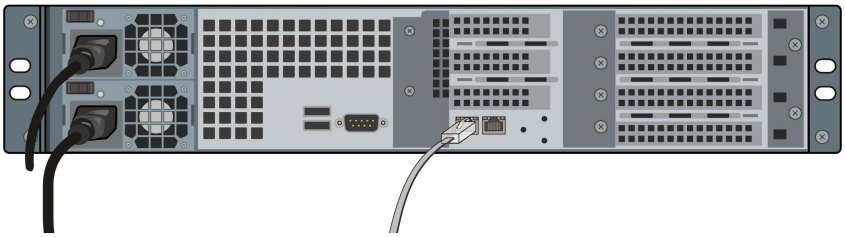
If you find damage, file a claim with the delivery carrier. Polycom is not responsible for damage sustained during shipment of this product.

To install the system:

1. Place the Polycom RSS 4000 unit on a stable flat surface in the selected location.
2. Insert each power cable connector into the rear of the RSS 4000 system and connect each to an appropriately rated socket outlet.

   The Polycom RSS 4000 unit is supplied with two power cables. BOTH power cables should be connected to the main power supply during normal operation.
3. Power on the system.

4 Connect a network cable to LAN1 in the back of the system.



5 Turn on the power switch.

Plug Acts as Disconnect Device:

- The socket outlets to which this apparatus is connected must be installed near the equipment and must always be readily accessible.
- In order to fully isolate the equipment, both power cords should be disconnected. Otherwise the system remains energized.

System Indicators

When the system is running, indicators on the front panel indicate operating conditions of the system. Refer to the table below for the indicators and their explanations.

Indicator	Panel Identifier	Status	Explanation
LAN1 Activity Status Indicator	LAN1 LED	Green	Network connection
		Off	No network connection
LAN 2 Activity Status Indicator	LAN 2 LED	Green	Network connection
		Off	No network connection
System Status Indicator	STATUS LED	Blinking blue	System active
Hard Disk Status Indicator	HDD LED	Blue	Hard disk idle
		Blinking blue	Hard disk access
Power Status Indicator	Power LED	Green	Power normal
		Blinking red	Power alarm

System Initial Configuration

You can now configure your RSS 4000 system to your local network by changing its IP settings. When the RSS 4000 system is in your local network, you can access its Viewer Portal and Administration User Interface (Thereafter referred to as Admin UI) from any computer within this network.

There are two ways to change the initial IP settings:

- Use the Admin UI (recommended)
- Use a hyperterminal application, or Telnet connection

The system's default IP settings of the LAN1 port are as the following:

- IP Address: 192.168.1.254
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.1.1

Before You Start

Obtaining Network Information

Before the initial configuration, get the following information from your network administrator to configure the Polycom RSS 4000 system to your local network:

- The IP address, subnet mask, and default gateway IP address you want to assign to the Polycom RSS 4000 LAN ports.
- (Optional) Your DNS server address.

  Your RSS 4000 system is shipped with the default DNS server addresses 208.67.222.222 and 208.67.220.220 pre-configured.
- (Optional) The gatekeeper address, H.323 prefix, E.164 number, and SIP server address to be assigned to the Polycom RSS 4000 system.

Obtaining the Product Activation Key

Before using the Polycom® RSS™ 4000 system, you need a product activation key to activate the system.

To obtain the product activation key:

1. Enter the following website address in the address bar of the web browser: http://support.polycom.com, and go to **Support Home**.
2. Enter your email address and password to log in to or register for a new account.
3. Go to **Licensing & Product Registration > Activation/Upgrade**.

4 Follow the page prompts step by step to generate the Key Code required for system activation.

If you are required to enter the **License Number** and **Serial Number** of the system, you can find them from the document provided with the Polycom® RSS™ 4000 system.

5 Note down the activation key (Key Code) on the page.

System Initial Configuration

You need to configure the RSS 4000 system to your local network by changing the system's initial IP settings.

To access the Admin UI, you need to use the Windows® Internet Explorer (version 7.0 or later) on a PC running over Windows XP or Windows 7.

To view archives, live streams, and multicasts, your computer must also have Adobe® Flash Player installed.

Before you start

Before you can access the Admin UI of the RSS 4000 system, you need to change the IP address of your computer so it is in the same network segment as the RSS 4000 system.

The default IP addresses of the LAN1 and LAN2 ports are as following:

	IP Address	Subnet Mask	Gateway
LAN1	192.168.1.254	255.255.255.0	192.168.1.1
LAN2	192.168.1.253	255.255.255.0	192.168.1.1

The LAN2 port is activated only after you have enabled the network separation in **System Config > IP Settings**, or when the system runs in the maximum security mode.

To change the IP address of your computer:

1 Connect your computer to the LAN1 port of the Polycom RSS 4000 system using a cross-over network cable.

2 Change your computer's IP address so it is within the same network segment as that of the RSS's LAN1 port.

If you need help on how to change your computer's IP settings, please contact your system administrator.

Changing the System's Initial IP Settings

Now you can access the system's Admin UI from your computer. You can configure this system to your local network and then access its Admin UI and Viewer's Portal from any computer within this network.

To change the system's initial IP settings from the Admin UI:

1 Change your computer's IP address so it is within the same network segment as that of the Polycom RSS 4000 system's LAN1 port.

The system's default IP address is 192.168.1.254.

Please note down your computer's IP address before changing it. You may need to restore your computer to this IP address afterwards.

2 Connect your computer to the LAN1 port of the Polycom RSS 4000 system using a cross-over network cable.

3 In your Internet Explorer, enter https://192.168.1.254/rss.

4 (Optional) Click **Select language** and select a language for the Admin UI.

5 Enter the default administrator's user name and password (both are *admin* by default), and then click **Log In**.

6 Change your password and then click **OK**.

7 The **Product Activation** page displays when you log in for the first time. Enter the activation key and click **Update**.

If you do not activate the system, you can still use the Admin UI, but the system does not allow outgoing and incoming calls.You cannot record, live stream, or play back meetings either.

8 When prompted to restart the system, select **No** to proceed with setting the IP address.

9 Go to **System Config > IP Settings** and configure the following settings:

Parameter	Description
Enable Network Separation	Specify whether to route the signaling and management traffic through LAN1 and LAN2 interfaces separately. This offers higher security for the signaling data.
Obtain an IP Address Automatically (DHCP)	Specify the system to obtain an IPv4 address automatically. **Note: Obtaining an IP Address Automatically** is not recommended. For best results, the system should be configured with a static IP address.

Using the following IP Address	Specify whether to use a static IPv4 address. If selected, you need to specify the IP address and subnet mask.
Enable IPv6	Specify whether to enable IPv6 related functions.
Obtain an IP Address Automatically (IPv6)	Specify whether to obtain the IPv6 address automatically using Stateless Address Auto-configuration (SLAAC). **Note**: Obtaining an IP Address Automatically is not recommended. For best results, the system should be configured with a static IP address.
Using the following IP Address (IPv6)	Select this option to manually configure a static IPv6 address: • **Link Local Address**: Specify an address for link local communication. Routers do not forward packets with link local addresses. • **Site Local Address**: Specify an address for site local communication. Routers do not forward packets with site local addresses. • **Global Address**: Specify one or several address for communication with external IPv6 networks. Separate several addresses with a comma (,). **Note**: An IPv6 address should be prefixed with fe80::/64.
Enable ICMP V6 DAD	Specify whether to enable DAD (Duplicate Address Detection) to ensure the IPv6 address set to the system is unique in the local network.
Enable ICMP Echo	Specify whether to allow the system to respond to an ICMP (Internet Control Message Protocol) echo request (Ping) sent from other devices in the network. In some high-security environments, you may need to disable this option to protect the system from Ping attacks.
MTU	Specify the MTU (Maximum Transmission Unit) size.
LAN Speed	Specify the speed or duplex modes for the LAN port. Select **Auto** to let the system set the speed automatically. **Note:** When setting the LAN port speed, contact your network administrator to ensure that the switch link rate matches the system port speed.
NAT Public (WAN) Address	Specify whether to enable the NAT (Network Address Translation). NAT environments use private internal IP addresses for devices within the network, while using one external IP address to allow devices inside the LAN to communicate with other devices outside the LAN.

10 Configure the following general settings:

Parameter	Description
Enable Destination Unreachable Message	Specify whether to allow the system to forward ICMP destination unreachable messages that come from other network devices when the system is configured to serve as a router.
Host Name	Specify the host name of the system.
Domain	Specify the domain name of the system.
Default IPv6 Gateway	Specify the address of the interface to use for accessing the IPv6 gateway.
Default IPv4 Gateway	Specify the address of the interface to use for accessing the IPv4 gateway.
Preferred DNS Server	Specify the preferred DNS server address for the system to resolve domain names.
Alternate DNS Server	Specify the alternate DNS server address for the system to resolve domain names.

11 Click **Add** to add static routes. You need to enter the following information for each route:

Parameter	Description
Destination	Specify the IP address of the destination network.
Gateway	Specify the IP address of the gateway to access the destination network.
Subnet Mask	Specify the subnet mask for the destination network.

12 Click **Update**. The system restarts to apply your changes.

13 Change your computer's IP address back to its original address.

This is to ensure your computer and the Polycom RSS 4000 system are within the same network.

To change the IP address using the RS-232 Console:

1 Connect your computer to the RS-232 port of the Polycom RSS 4000 system with a serial port cable and activate the console port (115200, 8 bits).

2 After you log in to the console port, enter the default password *POLYCOM* to enter the system.

3 Enter *?* or *help* after the prompt "#" and the system displays available command information.

4 Change the IP address using the command in the format below:

- set lan1 ip {dhcp | static <ip > netmask <mask > gw <gateway > }

For example, to set the IP address of LAN1 port to 172.21.103.29, subnet mask to 255.255.255.0 and gateway address to 172.21.103.254, enter the following command:

```
# set lan1 ip static 172.21.103.29 netmask 255.255.255.0 gw 172.21.103.254

Reboot is require in order for the change to take effect. Reboot now? [Y for yes
 / N for no]Y

restart system ...
```

Please note:

- The same steps are also applicable for a Telnet connection.
- Only one console (Telnet or RS-232) can be connected at a time.

(Optional) Installing Multicast Controls

When you activate the system and subsequently connect to the system's Admin UI for the first time, you are prompted that a Polycom RSS 4000 multicast add-in is required. If you have already purchased the multicast license, please install the controls following the instructions.

Only after this installation can your computer receive multicast videos sent by the Polycom RSS 4000 system.

- If you use the Internet Explorer, first confirm the **Security Mode (**for version 7.0 or 8.0), or **Enable Protected Mode** (for version 9.0) option under **Tools > Internet Options > Security** is disabled before installing the controls, to ensure successful installation and normal use of the multicast function.
- You must log in to the system as an administrator to be able to install the controls.

(Optional) Configuring the Gatekeeper Settings

If a gatekeeper is configured on your network, register the Polycom RSS 4000 system to the gatekeeper to simplify calling.

To register the system to the gatekeeper:

1. In the Internet Explorer's address line, enter the system's address, for example, https://10.11.12.13/rss.
2. Go to **System Config > Signaling Settings > H.323**.
3. Select **Register To Gatekeeper**.
4. Configure the following settings:

Parameter	Description
Primary Gatekeeper	Indicates whether the system is registered to the primary gatekeeper.
Gatekeeper IP Address	Specify the IP address for the gatekeeper.
Gatekeeper Port	Specify the port number for the gatekeeper.
Register's User Information for Gatekeeper	Specify whether to register the system to a Polycom DMA 7000 system for H.235.0 authentication. When H.235.0 authentication is enabled, the gatekeeper ensures that only trusted endpoints are allowed to access the gatekeeper.
Gatekeeper User	Specify the user name for registration with the Polycom DMA server.
Gatekeeper Password	Specify the password for registration with the Polycom DMA server.
Alternate Gatekeeper	Indicates whether the system is registered to the alternate gatekeeper. **Note**: The alternate gatekeeper is used only when the primary gatekeeper is not available.
System Prefix / E164	Specify the E.164 number for the system.
System H.323 Alias	Specify the H.323 alias for the system.

5 Click **Update**. The system restarts to apply your changes.

User Interfaces

The Polycom RSS 4000 system provides four ways for you to configure the system, and to manage and view media files:

- Viewer Portal: View, play archives and live streams, or reserve meeting recordings.

  For more information, see Using the RSS 4000 Viewer Portal on page 93.

- Admin UI: Configure recording parameters, record meetings, play back archives and live streams, and monitor the system.

  For more information, see Using the RSS 4000 Admin UI on page 15.

- TV user interface: Record meetings, or view archives using an endpoint's remote control.

  For more information, see Using the RSS 4000 TV User Interface on page 87.

- Hyper terminal interface: Debug the system from the command line.

For more information, see Appendix B – Telnet and Terminal Commands on page 103.

Working Mode

The Polycom® RSS™ 4000 can work in two working modes:

- Normal mode: Provides the maximum access to the system functionalities and is the most commonly used mode for general video conferencing environments.
- Maximum security mode: Intended for high-security environments, for example, government or military environments, by disabling features such as multicast, Telnet, and serial port access. Antivirus protection and separate network signaling and management traffic are also enabled to delivery higher security.

Unless otherwise noted, the following chapters introduce the system on the assumption that it runs in the normal mode.

Starting a Recording

You can start recording in the Polycom RSS 4000 system using one of the following methods:

- Calling an interoperable endpoint from the Polycom RSS 4000 system's Admin UI (only for administrators).
- Calling the Polycom RSS 4000 system using an interoperable endpoint's remote control.
- Connecting the Polycom RSS 4000 system to an MCU-hosted call.

If the **Recording Link** function is configured on the Polycom RMX™ series conference platform and the platform is integrated with the Polycom RSS 4000 system, the Polycom RSS 4000 system can be called automatically for recording when a multi-point conference is hosted through MCU.

For more information about configuring the **Recording Link** function on the MCU, refer to the User Guide provided with the MCU.

To start a recording from the Admin UI (only for administrators):

1. In the Internet Explorer's address line, enter the system's address, for example, https://10.11.12.13/rss.
2. Enter the user name and password to log in to the system.

3 Go to **Admin > Dashboard**. In the **Signaling Connections** area, click **Dial out to record**.

4 Configure the following settings:

Parameter	Description
Signal	Set the H.323 or SIP network type for the system to place a call. Your choice depends on the call type used by the peer device.
Address Type	Specify the address type used to call.
Address	Specify the calling address. The system supports entering the calling address with an extended service number in the address box. If you call a Polycom RMX system, you can dial into the conference held on the RMX system by entering the numbers in the following formats: • [RMX E.164 prefix][room number] - Use when every system has registered to a gatekeeper. For example, if the RMX prefix is 925 and the room number is 1001, dial *9251001*. **Note**: If the conference requires a password, you can dial [RMX E.164 prefix][room number]##[password]. • [room number]@ [RMX IP address] - Use when every system has enabled SIP. For example, if the room number is 1001 and RMX IP address is 172.22.30.40, dial *1001@172.22.30.40*. • [RMX IP address]##[room number] - Use when a system has not been registered to a gatekeeper. For example, if the RMX IP address is 172.22.30.40 and the room number is 1001, dial *172.22.30.40##1001*. **Note**: If the conference requires a password, you can dial [RMX IP address]##[room number]##[password].
VRR Name	Click **Select** to select a virtual recording room (VRR). You can use the built-in default VRR, or one you have created. A VRR defines recording policies. For more information, refer to Virtual Recording Room (VRR) on page 58.

5 Click **OK**.

6 When the connection between the Polycom RSS 4000 system and the endpoint is established, you can click to start recording.

The recording starts immediately if **Recording Immediately** is enabled in the selected VRR.

For more information, see To define a VRR: on page 62.

To start recording by dialing the Polycom RSS 4000 system:

1 Enter the E.164 prefix or H.323 ID of the Polycom RSS 4000 system on the remote control of an interoperable endpoint.

If your system or endpoint is not registered to the gatekeeper or to a SIP server, call the system IP address instead.

2 Select **Start Recording > Start** using the remote control. indicates that the recording is ongoing.

You can also dial in to a VRR directly to start recording by dialing one of the following:

- [RSS IP]##[VRR number]#

  For example, if the RSS IP is 11.12.13.14, and the VRR number is 4096, dial *11.12.13.14##4096#*.
- [RSS H.323 ID][VRR number]

  For example, if the RSS H.323 ID is rss123, and the VRR number is 4096, dial *rss1234096*.

For more information about recording using VRRs, refer to Predetermined VRR on page 65.

Playing Back Media Archives

To see a list of compatible web browsers and media players, please refer to the *Release Notes for the Polycom RSS 4000, Version 8.0* on http://support.polycom.com.

To view archives, your device must turn off the pop-up blocker. For example:

- For iPad: From **Settings > Safari**, make sure the option **Block Pop-ups** is **OFF**.
- For Android devices: From **Browser > Settings > Advanced**, make sure the option **Block Pop-ups** is **OFF**.
- For PC Internet Explorer (version 7, 8, and 9): From **Tools > Internet Options > Privacy**, make sure the option **Turn on Pop-up Blocker** is NOT selected.

You can play back recorded media archives stored in the Polycom RSS 4000 system using one of the following methods:

- Playing back from the Polycom RSS 4000 system's Viewer Portal.

  For more information, see Managing Archives and Live Streams Using the Viewer Portal on page 94.
- Playing back from the Polycom RSS 4000 system's Admin UI.

  For more information, see Playing Back and Downloading Archives on page 74.

- Playing back by calling the Polycom RSS 4000 system with an interoperable endpoint, or by entering the archive's quick code on the remote control of an interoperable endpoint.

You can only play back H.323 recordings that are not recorded with multipoint VRRs using the quick code.

For more information, see Viewing Archives Using the TV User Interface on page 90, and Quick Code on page 80.

To see a list of compatible endpoints, please refer to the *Release Notes for the Polycom RSS 4000 8.0* on http://support.polycom.com.

- Download recorded files and play back using compatible media players.

  For more information, see Playing Back and Downloading Archives on page 74.

Viewing Live Streams

To view live steams, your device must turn off the pop-up blocker. For example:

- For iPad: From **Settings > Safari**, make sure the option **Block Pop-ups** is **OFF**.
- For Android devices: From **Browser > Settings > Advanced**, make sure the option **Block Pop-ups** is **OFF**.
- For PC Internet Explorer (version 7, 8, and 9): From **Tools > Internet Options > Privacy**, make sure the option **Turn on Pop-up Blocker** is NOT selected.

You can view live streams served by both the Polycom RSS 4000 system and the external servers by using one of the following methods:

- View it from the Polycom RSS 4000 system's Viewer Portal.

  For more information, see Managing Archives and Live Streams Using the Viewer Portal on page 94.

- View it from the Polycom RSS 4000 system's Admin UI.

  For more information, see Playing Back and Downloading Archives on page 74.

- View it by calling the Polycom RSS 4000 system with an interoperable endpoint.

  For more information, see Viewing Archives Using the TV User Interface on page 90.

- View it from the portal of external media servers, if configured.

You can view multicasts from the Admin UI only.

2

Using the RSS 4000 Admin UI

This chapter presents how to use the Admin UI of the Polycom RSS 4000 system. It contains the following sections:

- Basics about the Admin UI on page 15
- System Configuration on page 19
- System Administration on page 40
- User Management on page 54
- Virtual Recording Room (VRR) on page 58
- External Servers on page 68
- Media Management on page 73
- My Settings on page 84

Basics about the Admin UI

This section introduces how to access the Admin UI, and details its fundamental layout.

The Polycom RSS 4000 system allows up to 200 users to log in to the Admin UI at the same time.

To log in to the Admin UI:

1 In the Internet Explorer's address line, enter the system's IP address in this format: https://<system IP address>/rss.

When the Polycom RSS 4000 system runs in the normal mode with network separation disabled, access the Admin UI using the system's LAN1 IP address.

When the Polycom RSS 4000 system runs in normal mode with network separation enabled, or when it runs in the maximum security mode, access its Admin UI using the system's LAN2 IP address.

2 Enter your user name and password to log in to the system.

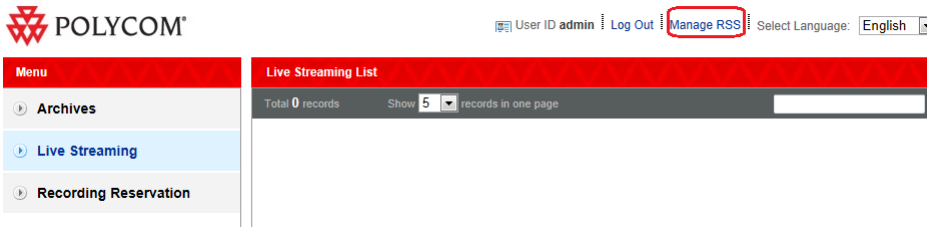
When making a connection from an Internet Explorer to configure the Polycom RSS 4000 system, always enter the address of the system in this format: https://<system IP address>/rss>, for example, https://10.11.12.13/rss.

Using the HTTPS protocol ensures that the configuration of all login credentials (such as user names and passwords) are transmitted using an encrypted channel. This includes those credentials used to communicate with third-party systems on your network. Using the HTTPS protocol limits the ability of anyone monitoring traffic on the network to discover these credentials.

To access the Admin UI from the Viewer Portal:

1 In the Internet Explorer's address line, enter the system's IP address in this format: https://<system IP address>/.

2 Click **Manage RSS link**, and then enter your user name and password to log in to the system.



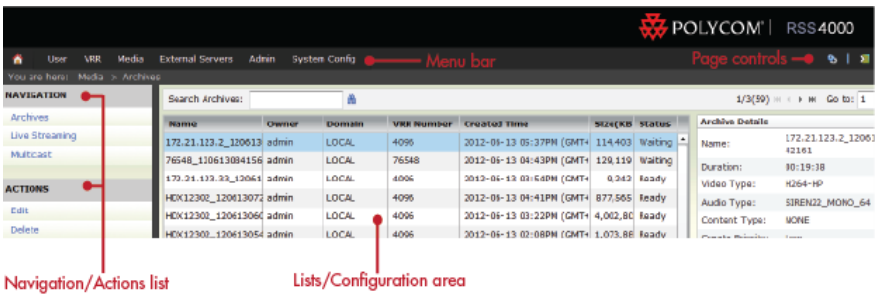
Admin UI Layout

The Admin UI varies with the user's role. However, it basically consists of the following four parts:

- Menu bar: Provides all the function groups for system configuration.
- Group of page controls: Enables you to perform controlling operations on a web page:
  - : Displays information about the current user, the IP address of the system, and the system hardware and software versions. You can also change system display font there.
  - : Logs out from the Admin UI.
  - : Locks the Admin UI. You need to enter your password to unlock it.

A Maximum of three password attempts are allowed. Any further password attempt locks the window, and you must enter the Admin UI URL to log in again.

- Navigation/Actions list: Provides navigation links to a group of relevant function pages, and list actions available for the current operation.
- Lists/Configuration area: Shows item lists, detailed parameters, or configuration items.



To change the system font:

1 Click **Settings**, and then drag the slider to change the font size.

2 Click **Apply** and then click **Close**.

To view your system hardware, software and remote server versions:

>> Click **Settings**.

To log out from the Admin UI:

>> Click **Log Out**.

To lock the Admin UI:

>> Click **Lock Screen**.

To unlock the screen, you need to enter your password.

Your account is locked temporarily if you reach the maximum number (three by default) of failed login attempts. Please close the Internet Explorer, re-open it and then enter the system's IP address <https://RSS IP address/rss> to enter the Admin UI again.

User Permissions

You can log in to the Admin UI as an administrator, an auditor, or as an end user.

The authority of these three roles are displayed as the following:

Content	User	Auditor	Administrator
Accessible information	• Personal settings • Owned VRRs • Archives, live streaming, and multicast recorded by the owned or authorized VRRs • Authorized archives	• Personal settings • System logs	All pages
Operation permissions	View and edit	View, edit, and delete	View, edit, and delete

Only auditors can delete system logs.

Common Operations

List Sorting, Searching, and Refreshing

You can search items listed on the Admin UI, for example, the VRR list and user list.

To search for a target item in the list:

>> Enter the name, or part of the name of the entry you want to find in the text field, and then click .

- Keyword search is case insensitive.
- In the archives search box, you can also type the keywords or tags specified to an archive.
- If you want to return to the full list view, delete all characters in the text field and click .

To sort the list:

>> Click a column header on the list to sort the list in ascending order based on the property indicated by the header. Then, when ▲ appears, you can click it to sort the list in descending order.

To refresh the list:

>> Click above the list.

Sizing the Pane

To size the pane:

>> Move the cursor to the border of the pane.

When the cursor turns into ⇹, drag the border while holding down the left mouse button.With full web configuration management permissions, administrators can view all recordings and live streaming videos, configure all functions, and monitor and maintain the system.

System Configuration

IP Settings

The Polycom RSS 4000 system supports both IPv4 and IPv6 network communications. You can configure parameters to be used for network communication, including system IP address, DNS server, NAT server and speed/duplex modes for LAN ports.

The Polycom RSS 4000 system supports only IPv6 system management and IPv6 H.323 recording. It doesn't support IPv6 streaming and IPv6 SIP recording.

For more information, refer to System Initial Configuration on page 5.

System Time

You can synchronize the system time with your computer, or with a network time server.

To set the system time:

1 Go to **System Config > System Time**.

2 Configure the following settings:

Parameter	Description
The time service	Specify how to set the system time: • **The Console**: Synchronize the system time with your computer. • **The NTP Server**: Obtain the system time from a time server.

Date Time	The current system date and time. Changing the time manually is not recommended.
NTP servers 1 and NTP server 2	Specify the address or domain name of a network time server. NTP server 2 is used only when NTP server 1 is not available. **Note:** If you set a domain name, make sure you have already set a DNS server address that can resolve this domain name in **System Config > IP Settings**.

3 Click **Update**. The system restarts to apply your changes.

Recording Settings

You can configure supplementary recording settings here.

To configure recording setting options:

1 Go to **System Config > Recording Settings**.

2 Configure the following settings:

Parameter	Description
Continue recording if no resource for live streaming	If this option is selected, when there are insufficient resources available to live stream a meeting, the system records the meeting to the hard disk automatically. You cannot continue viewing the video in real time through the web. However, you can play back the video upon the completion of recording and format conversion. If this option is not selected, when there are no live streaming resources, the system rejects all calls that have live streaming enabled.
Enable 1080p H.323 recording with live streaming	Specify whether to enable the 1080p capability of the system for recording with live streaming. If this option is selected, the system records in 1080p mode. Users can view recorded meeting archives in 1080p from the TV UI. However, streaming is limited to 720p or lower.
Enable Recording Tone	Specify whether to play the recording tone every 10 seconds during a recording. This is to notify the participants of the ongoing recording.

Key Frame interval	Specify the fast forward and backward intervals when playing back recorded files on an endpoint. For example, if it is set to one minute, the system inserts an index marker every minute when recording. When you press **Fast forward** using FECC (Far End Camera Control) or DTMF, the video playback jumps to the nearest index marker from the current location.
AES	Specify how AES (Advanced Encryption Standard) encryption is enabled for H.323 connections: • **Required For All Calls:** Enable the AES encryption for all H.323 calls, including video and audio only calls. This option requires the device to connect the system with AES enabled, otherwise, the connection cannot be set up. • **Required For Video Calls**: Enable the AES encryption for all H.323 video calls. This option requires the device to connect to the system with AES enabled, otherwise, the connection cannot be set up. • **When Available**: Enable the AES encryption for H.323 connections when the peer device enables the AES option, and vice versa.
Support AES 256-Bits key for encryption	Specify whether to enable the 256-bit key for AES encryption. If not selected, the AES uses 128-bit key for encryption by default.

Multicast Settings

The Polycom RSS 4000 system supports the multicast function and can perform the one-to-many transmission of video streams. The system only needs to send the video streams once so that multiple computers can simultaneously share live streaming or recorded videos, so as to greatly reduce the demand for transmitting network video streams and save the network bandwidth.

The Polycom RSS 4000 system supports the simultaneous multicast of up to 20 channels.

Before You Start

To use the multicast function successfully, the following conditions are required to be met:

- The multicast function is activated in the Polycom RSS 4000 system. The multicast function is optional. It is available only after you purchase the license for this function and the system is activated. Please contact your supplier to obtain this function.
- Multicast controls are installed on the computer to receive the multicast. For more information about multicast controls, refer to (Optional) Installing Multicast Controls on page 9.

- Routers and switches in the network of client computers are configured correctly to support the IP multicast communication with the Polycom RSS 4000 system.

Configuring Multicast

Before you use the system to perform the multicast, it is necessary to configure parameters on the Multicast page.

To configure multicast parameters:

1. Go to **System Config > Multicast Settings**.
2. Configure the following settings:

Parameter	Description
Auto Multicast for Live Streaming	If this option is selected, when there is a live streaming started, the system also multicasts the live video automatically at the same time.
Multicast IP Pool Starting Address	Specify the initial IP address of the multicast address pool. The system uses 20 consecutive addresses starting with this address to perform the multicast. The valid starting IP address range is 233.0.0.0 - 239.255.255.236. That is, the whole mutlicast IP pool is 233.0.0.0 - 239.255.255.255.
Multicast Port	Specify the multicast port. All multicast video streams use the same port as set here. The valid port range is 1-65535.

For how to start and stop the multicast and how to view multicast videos, see Multicast on page 83.

While multicast operations are roughly the same for the administrator and ordinary users, the difference is that the administrator can stop all ongoing multicasts and ordinary users can only stop the multicasts which they have started.

Certificate Management

X.509 certificates are a security technology that assists networked computers in determining whether to trust each other. The Polycom RSS 4000 system supports using X.509 certificates (version 3 or earlier) for authenticating the network connections. Once a certificate is purchased and installed in the Polycom RSS 4000 system, it may be used for the following connections:

- Web server (TLS) and TV user interface
- Microsoft Active Directory server (LDAPS)
- Microsoft Exchange Server (SSL)

- FTP Server (FTPS)

Installing the Certificate in the System

To install certificates on the Polycom RSS 4000 system:

1. Install your chosen certificate authority's public certificate, if necessary, so that the Polycom RSS 4000 system trusts that certificate authority.
2. Create a certificate signing request to submit to the certificate authority.
3. Install a public certificate signed by your certificate authority that identifies the Polycom RSS 4000 system.

   The Polycom RSS 4000 system accepts the following types of certificate chains or single certificates:

Type	Description
.pem	Privacy Enhanced Mail, base64 encoded DER certificate, enclosed between "-----BEGIN CERTIFICATE-----" and "-----END CERTIFICATE-----".
.cer, .crt, .der	Usually in binary DER form, but Base64-encoded certificates are also common (refer to .pem).
.p7b, .p7c	PKCS#7 SignedData structure with certificates or CRLs and without data.
.p12	PKCS#12, may contain public certificates and password-protected private keys.
.pfx	PFX, predecessor of PKCS#12. This type usually contains data in PKCS#12 format, for example, with PFX files generated in IIS.

Installing a Certificate Authority's Certificate

You must install a certificate authority's certificate if you don't obtain a certificate chain that includes a signed certificate for the Polycom RSS 4000 system, your certificate authority's public certificate, and any intermediate certificates.

The certificate must be either a single X.509 certificate or a PKCS#7 certificate chain. If it is ASCII text, it's in PEM format, and starts with the text -----BEGIN CERTIFICATE-----. If it is a file, it can be either PEM or DER encoded.

To install a certificate for a trusted root CA:

1. Go to **System Config > Certificate Management**.
2. If you are using a certificate authority that is not listed, obtain a copy of your certificate authority's public certificate.
3. In the **ACTIONS** list, select **Install Certificates**.

4 Do one of the followings:

- Click **Upload certificate** and click ... to browse to the certificate. Enter your password if necessary.
- Copy the certificate text, and then click **Paste certificate** to paste it into the text box.

5 Click **OK**. If the certificate can be verified, the system installs it.

Creating a Certificate Signing Request

This procedure creates a CSR (certificate signing request) that you can submit to your chosen certificate authority.

Creating a new CSR overwrites the existing pending CSR, if any.

To create a certificate signing request:

1 Go to **System Config > Certificate Management**.

2 In the **ACTIONS** list, select **Issue Signing Request**.

3 When the system prompts, select **Generate New**.

4 Enter certificate information:

Parameter	Description
Domain	Specify the domain name of the system (Optional).
Organizational unit (OU)	Specify the business unit defined by your organization (Optional). Use a comma(,) to separate several business units.
Organization (O)	Specify your organization's name (Optional).
City or locality (L)	Specify the city where your organization is located (Optional).
State (ST)	Specify the state or province where your organization is located (Optional).
Country (C)	Specify your two-character country code.

5 Click **OK**.

The **Certificate Signing Request** dialog box displays the encoded request.

6 Copy the entire contents of the **Encoded Request** box and submit it to your certificate authority. Be sure to include the text -----BEGIN NEW CERTIFICATE REQUEST----- and -----END NEW CERTIFICATE REQUEST-----.

Depending on the certificate authority, your CSR may be submitted using email or by pasting it into a web page.

7 Click **OK**.

When your request has been processed, your certificate authority sends you a signed public certificate for your Polycom RSS 4000 system. Some certificate authorities also send intermediate certificates or its root certificates.

The certificate authority might send you the certificate as email text, an email attachment, or content on a secure web page.

Installing a Certificate

This procedure installs the certificate or certificate chain provided by the certificate authority.

To install a signed certificate that identifies the Polycom RSS 4000 system:

1 In the **ACTIONS** list, select **Install Certificates**.

2 In the **Install Certificates** dialog box, do one of the following:

- Click **Upload certificate** and click ... to browse to the certificate. Enter your password if necessary.
- Copy the certificate text, and then click **Paste certificate** to paste it into the text box below. You can paste multiple PEM certificates one after the other.

3 Click **OK**.

Viewing the Certificate Details

To view the certificate details:

1 Go to **System Config > Certificate Management**.

2 In the **ACTIONS** list, click **Display Details**.

Parameter	Description
Certificate Info	States the purpose and alias of the certificate.
Issued To	States the entity to which the certificate was issued and the certificate serial number.
Issued By	States the issuer.
Validity	States the issue and expiration dates.
Fingerprints	States SHA1 and MD5 fingerprints (checksums) for confirming certificate.

When a certificate is about to expire, you are notified ten days prior to the expiration date.

Removing a Certificate

You can remove installed certificates.

A certificate cannot be removed when it is the only private certificate which can be used as web service certificate in the system.

To remove a certificate:

1. Go to **System Config > Certificate Management**.
2. Highlight the certificate you want to remove.
3. In the **ACTIONS** list, click **Delete Certificate**.

Using OCSP to Obtain Revocation Status

You can enable OCSP (Online Certificate Status Protocol) to obtain the revocation status of a certificate presented to the system.

If the certificate includes an AIA extension, the system has the information needed to configure OCSP for obtaining revocation status. If the certificate does not include an AIA extension, you must specify the OCSP server URL and the certificate to verify OCSP response message.

You can override the OCSP information contained in the AIA extension of a certificate by specifying the **OSCP responder URL**.

The OCSP URL field is configurable only in maximum security mode.

To configure OCSP:

1. Go to **System Config > Certificate Management**.
2. **Select Enable OCSP**.
3. Click **Store OCSP configuration**.

Client Certification

If client certificate validation is enabled in the system, other systems can connect to the Polycom RSS 4000 system only if they present a client certificate issued by a CA that the system trusts.

Enable the client certificate validation only in one of the following situations:

- Your network has implemented a complete PKI (Public Key Infrastructure) system, including a CA server, client software, and the appropriate operational procedures. Client hardware, tokens, and smartcards are optional.
- The CA's public certificate is installed in the Polycom RSS 4000 system so that it trusts the CA.
- All authorized users' systems, including yours, have a client certificate signed by the CA that authenticates them to the Polycom RSS 4000 system.

To enable the client certificate validation:

1. Go to **System Config > Client Certificate**.
2. Select **Enable web client certificate validation**.
3. Click **Update**. The system restarts to apply your changes.

QoS

QoS (Quality of Service) is very important in transmission of high-bandwidth audio and video data. You can use QoS to test and guarantee the following settings:

- Average packet delay
- Delay variation (jitter)
- Error rate

To specify QoS parameters:

1. Go to **System Config > QoS**.
2. Configure the following settings:

Parameter	Description
Enable QoS for Signaling	Enable configuration of the QoS settings. if not selected, the system uses the default QoS settings.

Parameter	Description
Type	**DiffServ** and **Precedence** are two methods for encoding packet priority. The priority set here for audio and video packets should match the priority set in the network routers. • **Differv**: Select when the network router uses **Differv** for priority encoding. If this option is selected, enter values in the **Audio** and **Video** fields. The value range is 0-63. **Note:** If you select **DiffServ** but your router does not support this standard, IP packets queue on the same communication links with data packets. This non-prioritized queueing greatly increases the latency and jitters in their delivery and can negatively impact performance. • **Precedence**: Select this option when the network router uses **Precedence** for priority encoding, or when you are not sure which method is used by the router. **Precedence** should be matched with **None** in the **ToS** field. The value range is 0-5. If this option is selected, enter values in the **Audio** and **Video** fields. The value range is 0-5. **Note: Precedence** is the default mode as it is capable of providing priority services to all types of routers and is currently the most common mechanism.
Audio / Video	Specify the priority for audio and video IP packets. The recommended priority is 4 for audio and video to ensure that the packet delay for both is the same, that audio and video packets are synchronized, and to ensure lip and audio synchronization (lip sync).
Control	Specify the priority for controlling packets.
ToS	Select the ToS (Type of Service) that defines optimization tagging for routing the conference audio and video packets. • **Delay**: The recommended default for video conferencing: prioritized audio and video packets tagged with this definition are delivered with minimal delay. • **None**: No optimization definition is applied. This is a compatibility mode in which routing is based on **Precedence** priority settings only. Select **None** if you do not know which standard your router supports.
Enable DSCP	Enable DSCP (Differentiated Services Code Point) for operations, administration and maintenance packets. If this option is selected, enter values in the **OA&M** fields. The value range is 0-63.

3 Click **Update**. The system restarts to apply your changes.

Security Settings

Ports

The port are used to set the Polycom RSS 4000 system to allow H.323 and SIP (Session Initiation Protocol) calls on pre-configured ports.

To configure the port:

1 Go to **System Config > Security Settings > Ports**.

2 Configure the following settings:

Parameter	Description
Fixed Ports for H.323	Specify whether to define the TCP and UDP ports for H.323 connections. • Don't select this option if you are defining a Network Service for local calls that does not require configuring a firewall to accept calls from external entities. • When this option is not selected, the system uses the default port range. • If the firewall is incompatible with H.323, enable this setting and specify the TCP and UDP port ranges.
Fixed Ports for BFCP	Specify whether to define the TCP and UDP ports for SIP BFCP (Binary Floor Control Protocol) connections. • Don't select this option if you are defining a Network Service for local calls that does not require configuring a firewall to accept calls from external entities. • When this option is not selected, the system uses the default port range. • If the firewall is incompatible with SIP, enable this setting and specify the TCP and UDP port ranges.
TCP Ports	Specify the default TCP port range. You can set the starting port number, and the ending port number is calculated automatically.
UDP Ports	Specify the default UDP port range. You can set the starting port number, and the ending port number is calculated automatically.

3 Click **Update**. The system restarts to apply your changes.

Diagnostics

You can use Ping to verify that the Polycom RSS 4000 system can communicate with another node in the network.

To run Ping on the Polycom RSS 4000 system:

1. Go to **System Config > Security settings > Diagnostics**.
2. Enter an **IP address or host name** and click **Ping**.

Security Policy

The Polycom RSS 4000 system provides a comprehensive security policy to ensure secure access to the system.

To set security policy:

1. Go to **System Config > Security Settings > Security Policy**.
2. Configure the following settings:

Parameter	Description	
Account Management	Inactive Time for Locking Account	Specify a validity period for a user account that is not used for a long time. If the user keeps the account unlogged for the time set, the account status changes to **Inactive**. Inactive accounts cannot be used to log in to the system until the administrator changes the status to **Active**. Default: 30 days (MSM mode).
	Failed Login Lockout Threshold	Specify the number of failed login attempts allowed before the system sets the account status to **Locked**. The user cannot log in until the administrator changes the status to **Active**. Default: 3 times (MSM mode).
	Failed Login Lockout Window	Specify the time period during which the number of failed login attempts is calculated. Default: 1 hour (MSM mode).
	Failed Login Locked Duration	Specify the amount of time the account stays locked. If you specify Indefinite Lockout, the account stays locked until the administrator changes the status to **Active**. Default: Indefinite Lockout (MSM mode).

Parameter	Description	
Session Management	Session Idle Timeout	Specify the idle time of the system. If you do not perform any operation for the time set here, you automatically exit the system and need to log in again. Default: 10 minutes (MSM mode).
	Session Maximum Number Per User	Specify the maximum number of sessions allowed for each user account. Default: 5 (MSM mode).
	Session Maximum Number Per Application	Specify the maximum number of users who can be logged in during a session. Default: 200 (MSM mode).
Password Management	Password Expired Warning Period	Specify how far in advance the system displays a warning that the password will soon expire, if a maximum password age is set. Default: 7 days (MSM mode).
	Maximum Password Age	Specify the maximum number of days that can pass before the password must be changed. Default: 60 days (MSM mode).
	Minimum Password Age	Specify the minimum number of days that must pass before the password can be changed. Default: 1 day (MSM mode).
	Reuse Number of Password	Specify the number of most recent passwords that cannot be reused. For example, if set to 2, the last two passwords cannot be reused. Default: 10 (MSM mode).
	Allow to contain or reverse User ID	Specify whether to allow a valid password to contain the same characters, in the same order or reversed, as the user name.

Parameter	Description	
Password Complexity	Minimum Password Length	Specify the minimum number of characters required for a valid password. Default: 1 (normal mode), 15 (MSM mode).
	Minimum Password Changed Characters	Specify the number of characters that must be different or in a different position in a new password. If this is set to 3, “123abc” can change to “345cde” but not to “234bcd”. Default: 0 (normal mode), 4 (MSM mode).
	Maximum Consecutive Repeated Characters	Specify the maximum number of consecutive repeated characters in a valid password. If this is set to 3, “aaa123” is a valid password but “aaaa123” is not. Default: 0(normal mode), 2 (MSM mode).
	Minimum Upper Case	Specify the minimum number of uppercase characters required for a valid password. Default: 0 (normal mode), 2 (MSM mode).
	Minimum Lower Case	Specify the minimum number of lowercase characters required for a valid password. Default: 0 (normal mode), 2 (MSM mode).
	Minimum Numeric Characters	Specify the minimum number of numbers required for a valid password. Default: 0 (normal mode), 2 (MSM mode).
	Minimum Special Characters	Specify the minimum number of special characters required for a valid password. Supported characters include the characters displayed in the Special Characters Set field. Default: 0 (normal mode), 2 (MSM mode).

Parameter	Description	
PIN Management	Failed PIN Lockout Threshold	Specify the number of failed PIN inputs allowed before the system forces the user account to log out. Default: 0 (normal mode), 3 (MSM mode).
	Minimum PIN Length	States the minimum number of characters required for a PIN code. Default: 9 characters (MSM mode).
	Maximum PIN Length	States the maximum number of characters required for a PIN code. Default: 16 characters (MSM mode).

3 Click **Update**.The system restarts to apply your changes.

The value 0 indicates no limitation to this option.

Service Settings

Active Directory

The Polycom RSS 4000 system supports integration with a single Active Directory server.

After the integration, users in the Active Directory domain can access the Admin UI of the Polycom RSS 4000 system directly as ordinary users without needing to be registered directly in the Polycom RSS 4000 system user database.

To configure an Active Directory server:

1 Go to **System Config > Service Settings > Active Directory**.

2 Configure the following settings:

Parameter	Description
Integrate with Active Directory Server	Specify whether to integrate the Polycom RSS 4000 system with an Active Directory server. Once this option is enabled, you can configure specific parameters.
Active Directory Server	Set the IP address or domain name of the Active Directory server to be integrated. **Note:** If you set a domain name, make sure you have already set a DNS server address that can resolve this domain name in **System Config > IP Settings**.
User ID	Set the user name that will be used by the Polycom RSS 4000 system to access resources on the Active Directory server.
User Password	Set the user password that will be used by the Polycom RSS 4000 system to access resources on the Active Directory server.

3 Click **Update**. The system restarts to apply your changes.

After configuring the Active Directory server successfully, the configured Active Directory server domain name displays in the **Domain** list of the system's Admin UI. However, before you can log in to this domain, you need to import Active Directory users first.

Importing Active Directory Users

Before you can log in to the configured Active Directory server domain, you need to import Active Directory users first.

To import an Active Directory user:

1 Go to **User > Users**.

2 In the **ACTIONS** list, click **Import AD User**.

This button displays only when the system has been successfully configured with an Active Directory server.

3 Select a user from the list, and then click **OK**.

You can then log in to that domain as an ordinary user.

Then, you can select the appropriate domain in the list, and use existing users in the domain to log in directly. When logging in to the Polycom RSS 4000 system's Admin UI using an existing domain user, the user gets only ordinary user permissions.

Calendar Configuration

The Polycom RSS 4000 system can be integrated with the Microsoft Exchange Server 2007 and 2010, and work with other Polycom video conferencing devices to record or live stream conferences when scheduling conferences through Outlook.

To configure mail server information in the Polycom RSS 4000 system:

1. Go to **System Config > Service settings > Calendar Configuration**.
2. Configure the following settings:

Parameter	Description
Enable Calendar Integration	Sets whether to enable the calendar integration function. You can configure related parameters only when this option is enabled.
Exchange server address	Specify the address or domain name of the Exchange server to be integrated. **Note:** If you set a domain name, make sure you have already set a DNS server address that can resolve this domain name in **System Config > IP Settings**.
Calendar mailbox user ID	Specify the email account ID allocated to the video conferencing system by the Exchange server. This ID should be the same as the ID used by the Polycom RMX or DMA.
Password	Specify the password corresponding to the account ID.

Viewing Outlook Conference Archives

When scheduling conferences through the Outlook's calendar, if a conference has been set to be recorded or live streamed, the conference invitation message that participants receive would display a URL address that can be used to view the conference after it has been recorded or live streamed.

Click the link to open the Polycom RSS 4000 system's login page and then log in to view the **Archive** page or **Live Streaming** page for the recorded file in Polycom RSS 4000 system, then click **Play** on that page to view the video content.

If the recorded conference is a recurrent conference, the page displays other links to be used to access all the recorded conferences under that conference series.

By clicking **Outlook Meeting** on the right side of the page, you can view recorded conference information. The table below explains detailed meanings of these parameters:

Parameter	Description
Subject	Conference subject.
Start Time	Conference start time.
End Time	Conference end time.
Participants	Conference participants.
Organizer	Conference organizer.
VMR Name	Conference Virtual Meeting Room (VMR) name, a unique identification that is automatically generated by the Polycom DMA system based on the time the conference was created on the Outlook. All conferences under a periodic conference series share the same VMR name.
Related Archives	It is used for recurrent conferences, displaying the number of recorded conferences under that conference series. You can click View to filter all recorded conferences under that series in the list.
Related Streams	It is used for recurrent conferences, displaying the number of conference live streaming videos in progress under that conference series.
Play URLs	Lets you copy the URL of playing the archive to the clipboard. For archives recorded in two different bandwidths, clicking the **Copy link** will copy two URLs.

Signalling Settings

H.323

A gatekeeper manages functions such as bandwidth control and admission control. The gatekeeper also handles address translation, which allows users to make calls using static aliases instead of IP addresses that may change each day.

For more information, refer to (Optional) Configuring the Gatekeeper Settings on page 9.

SIP

If your network supports SIP, you can use SIP to connect IP calls. The Polycom RSS 4000 system only supports SIP integration with the Polycom DMA SIP servers.

To configure the SIP settings:

1 Go to **System Config > Signaling Settings > SIP**.

2 Configure the following settings:

Parameter	Description
Enable SIP	Specify whether to enable the SIP in the system. You need to set the SIP server-related parameters after this function is enabled.
Transport Type	Specify the transport layer protocol used for communicating with the SIP server. It needs to be consistent with the protocol supported by the SIP server.
Enable Certificate Validation	Specify whether to validate the server's certificate before accepting it. This option is available only after you select **TLS** as the **Transport Type**. **Note**: The RSS system always sends its own certificate to the server, regardless of the selection here.
Register to SIP Server	Specify whether to register the system to the Polycom DMA SIP server.
SIP Server	Specify the IP address, connection port, and domain name of the SIP server for registration service.
Register User Information	Specify the user name and password that authenticates the system to the SIP Server.
Outbound Proxy Server	For communication with the SIP server when the system is configured on the internal network, an outbound proxy server is required to implement traversal of the firewall or NAT. In this case, you need to set the IP address and port number for the outbound proxy server.

3 Click **Update**. The system restarts to apply your changes.

SNMP

Your system provides a standard SNMP (Simple Network Management Protocol) interface which supports SNMP version 1, version 2, and version 3 queries and traps with confidentiality, authentication, and integrity functions conforming to SNMP MIB. The interface uses a common MIB, making it interoperable with Polycom CMA, DMA, and RMX systems.

You can configure SNMP to receive system alarms and better monitor the performance of your system.

To configure SNMP settings:

Available configurable options vary with the SNMP agent version and security level selected.

1 Click **System Config > SNMP**.

2 Select **Enable SNMP**.

3 Configure the following agent parameters:

Parameter	Description
Retrieve MIB Files	Download MIB file to your computer.
Contact Person for this RSS	Specify a contact person for this RSS system.
RSS Location	Specify where this RSS system is located.
RSS System Name	Specify the name of this RSS system.
SNMP Agent Version	Specify the SNMP Agent version.

4 Configure the following security settings:

Parameter	Description
Send Authentication Trap	Specify whether to send trap messages to specified trap destinations when SNMP requests authentication fails.
Accepted Host Community Name	Specify the community name that the host belongs to.
User Name	Specify the user name that will be used to log in over the **Authentication Protocol**.
Security Level	Specify the security settings: • **No Auth, No Priv**: No authentication, no encryption. • **Auth, No Priv**: Authentication, no encryption. • **Auth and Priv**: Authentication and encryption.
Authentication Protocol	Specify the type of encryption to use when connecting with this user: • **MD5**: Message Digest 5 • **SHA**: Secure Hash Algorithm
Authentication Password	Specify the password that will be used to log in over the **Authentication Protocol**. **Note**: A valid password contains 8-64 characters, and not include these characters: &,',",<,>,%,|,+,=

Privacy Protocol	Specify the privacy protocol that you want to use: • **DES**: Data Encryption Standard • **AES**: Advanced Encryption Standard
Privacy Password	Specify the password that will be used to log in over the privacy protocol. **Note**: A valid password contains 8-64 characters, and not include these characters: &,',",<,>,%,|,+,=
Accept SNMP Packets from All Hosts	Specify whether to accept all SNMP packets from any host on the network, regardless of their identities. If you don't select this option, you can click **Add** to specify acceptable host IPs.

5 Configure the following **Trap** settings:

Parameter	Description
SNMP Trap Version	Specify the version of the SNMP protocol that you use when sending the SNMP trap.

6 To add SNMP trap destinations, click **Add**, and then enter the following:

Parameter	Description
IP Address	Specify the IP address of the trap destination.
User Name	Specify the user name that will be used to log in over the **Authentication Protocol**.
Engine ID	Specify the unique ID of the application from which the SNMP traps are to be sent. **Note**: A valid engine ID must be alpha numeric only, A-F, a-f, 0-9. The length should be between 10-64 characters. IDs prefixed with '0x' is allowed, where '0x' is not counted in the length.
Security Level	Specify the security settings: • **No Auth, No Priv**: No authentication, no encryption. • **Auth, No Priv**: Authentication, no encryption. • **Auth and Priv**: Authentication and encryption.
Authentication Protocol	Specify the type of encryption to use when connecting with this user: • **MD5**: Message Digest 5 • **SHA**: Secure Hash Algorithm
Authentication Password	Specify the password that will be used to log in over the **Authentication Protocol**. **Note**: A valid password contains 8-64 characters, and not include these characters: &,',",<,>,%,|,+,=

Privacy Protocol	Specify the privacy protocol that you want to use: • **DES**: Data Encryption Standard • **AES**: Advanced Encryption Standard
Privacy Password	Specify the password that will be used to log in over the privacy protocol. **Note**: A valid password contains 8-64 characters, and not include these characters: &,',",<,>,%,|,+,=
Community Name	Specify the trap destination community name.

7 Click **Update**. The system restarts to apply your changes.

System Administration

Dashboard

You can find realtime system status and information on the Dashboard.

Signaling Connection

Shows connection information and recording status of endpoints or MCUs which currently dial and set up connections with the system. Click >> to expand detailed parameters information. The table below provides parameters descriptions.

Parameter	Description
IP/Host	The IP address of the device connected to the Polycom RSS 4000 system.
Name	The name of devices that are connecting with the Polycom RSS 4000 system.
VRR Number	The VRR number used by the connection.
Signal	Displays the H.323 or SIP connection type.
Audio Type	The audio protocol used by the connection.
Video Type	The video protocol used by the connection.
Status	The connection status: recording, paused recording, playing back or idle.
Support Live Streaming	Whether the connection is performing live streaming. This feature isn't available in maximum security mode.
Encryption	Whether the connection is encrypted.

You can control the recording using the controls:

- : Start recording/live streaming.
- : Pause recording.
- : Stop recording/live streaming.
- : End the connection.

  You can dial out to connect the endpoint to record using **Dial out to record**. For more information, refer to Starting a Recording on page 11.

Web Connections

Shows information about all users connected to the Polycom RSS 4000 system. To end a user connection, click the corresponding .

If you log in to the Polycom RSS 4000 system from its Viewer Portal as an anonymous user, your **User ID** appears in the **Web Connection** list as **Anonymous**.

Hardware Status

Shows the hardware status of the system. If the hardware is in abnormal status, the font in the status bar appears in red.

Login Information

Displays the last login information on the Polycom RSS 4000 system, including the login time, user address, failed login information and so on.

Streaming Sessions

Shows the number of live streaming and Video on Demand sessions. The table below provides parameters descriptions.

Parameter	Description
Client IP	The IP address of the client computer which is playing the video.
Port	The port used for playing the video.
Name	The name of the video which is being played.
Bandwidth	The bandwidth of the video which is being played.
Type	Shows the type for the video which is being played: archive or live streaming.

System Alerts

Shows the system alert information.

System Information

Displays following system basic information:

- System name.
- The current version of the software running on the system.
- The hardware version of the system.
- The address and speed/duplex modes for LAN ports.
- The maximum number of recording ports and live streaming ports supported by the system.
- The maximum number of web streaming sessions that are supported.
- The activation statuses of the charged options.

Gatekeeper Status

Displays gatekeeper registration status. When the registration is successful, the system's E.164 prefix and H.323 alias are displayed.

External Server Status

The system can be integrated with external servers, such as FTP and Active Directory. External server status indicates the connection status between the system and the server. The meaning of each status is as follows:

- **Not Configured**: The server is not configured.
- **Account Error**: Error configuring registration account information.
- **Connected**: The server has been successfully connected to the system.
- **Connect failed**: Failed to connect the system to the server.

SIP Server Status

Displays the on-off status of the SIP option and registration status to the SIP server.

System Configuration Backup/Restore

You can back up and save the system configuration of the Polycom RSS 4000 system to your local computer so you can restore the system configuration in case of necessary. Supported configurations include:

- UI Customization

- Hard Disk Warning
- Data backup/configuration
- IP setting parameters
- System time
- Recording Settings
- Security setting, including certificate, port and security policy
- Service setting, including Active Directory server and calendar configuration
- Signaling setting, including gatekeeper, SIP, and QoS Setting
- Multicast settings

To backup current system configuration:

1. Go to **Admin > Config Backup/Restore**.
2. Click **Backup**.
3. Specify where to save the configuration file, and then click **Save**.

To restore the system configuration using the configuration file:

1. Go to **Admin > Config Backup/Restore**.
2. Click **Open**.
3. Select the configuration file and click **Open**.
4. Click **Upload**.
5. Confirm to restart the system.

Data Backup/Restore

The Polycom RSS 4000 system is able to backup user data to the FTP server in the network, and restore system user data to the selected time point (based on the time points generated in the backup). You can choose to back up the entire user data or backup archives separately.

- To back up media files of format WMV, MP4, MP3, and ZIP (not including RAW), you can perform a media backup. For more information, see Media Backup on page 46.
- To back up the system database, media files of all formats (RAW, WMV, MP4, MP3, and ZIP), you need to perform an image backup. For more information, see Backing up Image Data on page 44.
- To back up system configurations, see System Configuration Backup/Restore on page 42.

FTP Server Configuration

Before backing up user data, you need to configure FTP server on the Polycom RSS 4000 system first.

The Polycom RSS 4000 system supports the following FTP servers:

- 3CDaemon
- FileZilla Server
- Serv-U
- Microsoft FTP7.x For IIS7.x
- vsftpd

You can also configure FTP servers and transfer meeting recordings to these servers for Video on Demand service. For more information, see External Servers on page 68.

To configure an FTP server for backup:

1 Go to **Admin > Data Backup/Restore**.

2 Select **Enable Data Backup/Restore**.

3 Configure the following settings:

Parameter	Description
Server Address	Enter the IP address and port of the FTP server.
User Name	Enter the account and password for login to the FTP server. If the FTP server has anonymous logins enabled, you can click **Use Anonymous** to log in using anonymous account. **Note:** The registered FTP user should possess read-write permissions to user root directory.
Password	
Enable SSL	Set whether to enable SSL encryption for the communication between the Polycom RSS 4000 system and FTP server. The system can only support implicit SSL FTP.

4 Click **Update**. The system restarts to apply your changes.

When the Polycom RSS 4000 system is connected to the FTP server, **Backup/Restore Status** on the page displays **Connected**.

Backing up Image Data

You can back up image data to an FTP server in two ways: automatic periodic backup and immediate manual backup.

To automatically back up image data:

1 Go to **Admin > Data Backup/Restore**.

2 Select **Enable Data Backup/Restore**.

3 In the **Image backup configuration** area, specify where to save the backup data in the text field beside **Default Image Backup Path**.

If the default backup path is not set, the system creates a folder for the storage of files under the home directory of the FTP server.

4 Select **Enable automatic image backup**.

5 Configure the following settings:

Parameter	Description
Frequency	Select the period for automatic backup, measured in day.
Start Time	Select the start time of backup.

6 Click **Update**. The system restarts to apply your changes.

To manually back up the user data:

1 Go to **Admin > Data Backup/Restore**.

2 In the **ACTIONS** list, click **Backup the image**.

The system database and user data are backed up to the configured FTP server.

Restoring User Data

The Polycom RSS 4000 system automatically generates a time point upon the completion of user data backup. You can restore the user data on the system to the status of that time point later.

To restore user data:

1 Go to **Admin > Data Backup/Restore**.

2 In the **ACTIONS** list, click **Restore the image**.

3 Select the time point for the system to restore to, and then click **OK**.

The system database and media files of all formats (RAW, WMV, MP4, MP3, and ZIP) are restored.

The system restarts before restoring the user data. To cancel the data restoration, click **Cancel**.

The system restarts upon the completion the image restoration. Endpoints cannot dial into the Polycom RSS 4000 system when the system is restoring user data.

Media Backup

There are two ways to backup archives on the Polycom RSS 4000 system to an FTP server: automatic periodic backup and **Full media backup**. Files which have been backed up are not backed up again, unless **Full media backup** is conducted.

Files of format WMV, MP4, MP3, and ZIP are backed up in a media backup operation. However, RAW files are not included.

To back up system database, media files of all formats (RAW, WMV, MP4, MP3, and ZIP), you need to perform an image backup. For more information, see Backing up Image Data on page 44.

To back up system configurations, see System Configuration Backup/Restore on page 42.

To automatically back up archives:

1 Go to **Admin > Data Backup/Restore**.

2 In the **Media backup configuration** area, specify where to save the backup data in the text field beside **Media Back Path**.

3 Select **Enable automatic media backup**.

4 Configure the following settings:

Parameter	Description
Frequency	Select the period for automatic backup, measured in day.
Start Time	Select the start time of automatic backup.

5 Set whether to **Auto remove after backup is successfully completed.** If selected, the recorded files are automatically deleted from system after backup.

6 Click **Update**. The system restarts to apply your changes.

To manually back up the archives:

>> In the **ACTIONS** list, click **Full media backup**.

You can see the backup status in **Backup/Restore Status**. The system archives are backed up to the configured FTP server.

System Upgrade

You can upgrade the software version of the RSS 4000 when you log in as an administrator. After each major version upgrade, you need to activate the system using an activation key corresponding to the upgrade version. Different software upgrade versions may require different activation keys.

This document covers only system upgrade from version 7.0 to 8.0. If your system is older than version 7.0, you need to upgrade your system to 7.0 first. Then upgrade your system to 8.0.

- If your current system version is 6.0 or 6.4, you can upgrade it directly to 7.0.
- If your current system version is 5.0, upgrade it first to 6.0 or 6.4, then to 7.0.

You can download the upgrade packages from http://support.polycom.com, **Documents and Downloads > UC Infrastructure > Polycom® RSS™ 4000.** Please refer to the following description to upgrade your system.

To update your system software to version 8.0:

Please BACK UP your settings and recordings before you upgrade or downgrade your system, or restore your system to factory settings. Polycom is not liable to any user data lose during these operations.

1. Go to **Admin > System Upgrade**.
2. Select **I have read and agreed to the terms of the license info**.
3. Click **Open** and select version 8.0 software upgrade package, then click **Upload**.
4. When asked to confirm the action, click **Yes**.

   The system uploads the package and upgrades itself. This may take several minutes.
5. Upon the completion of the upload, the system restarts to apply changes.

   This may take several minutes.
6. Click **OK** to accept the **Program Policies**, if asked.
7. Enter your administrator **User ID** and **Password** and then click **Log In**.

   In the **Product Activation** page that appears, you can find **Software Version**.

   After the upgrade, you need to activate the system using an activation key corresponding to the upgrade pack version. Different software upgrade pack versions may require different activation keys.

Product Activation

After you installed or upgraded your Polycom RSS 4000 system, you need to activate the system. Before you start, you need to obtain the product activation code first.

For more information, see Obtaining the Product Activation Key on page 4.

To view the system activation status:

>> Go to **Admin > Product Activation**. Below system information are displayed:

Parameter	Description
Hardware Version	The current hardware version of the system.
Software Version	The current version of the software running on the system.
Serial Number	Specify the product serial number of the system.
Activation Status	Indicates whether the system is activated. After the system is successfully activated, displays, and otherwise displays.
Max Recording Ports	The maximum number of recordings ports supported by the system.
Max Live Streaming Ports	The maximum number of live streaming ports supported by the system.
Max Streaming Sessions	The maximum number of video-on-demand and live streaming supported by the system. Maximum: 200.
Encryption	Indicates whether the AES encryption function of the system is activated. This is a charged function. You can only use it after purchasing the License and activating it. When the encryption function is activated, displays, and otherwise, displays.
Multicast	Indicates whether the multicast function of the system is activated. This is a charged function. You can only use it after purchasing the License and activating it. After activating the function, the system can multicast the recorded videos to multiple groups of computers in the network. When the multicast function is activated, displays, and otherwise displays.
HD Live Streaming	Indicates whether the high resolution live streaming function of the system is activated. This is a charged function. You can only use it after purchasing the License and activating it. Once this function is activated, the system can live stream 720p resolution videos. This license also increases the web streaming capacity from 100 to 200 simultaneous unicast connections. When the high resolution live streaming function is activated, displays, and otherwise displays.

To activate your system or service:

1. Enter the obtained activation key in **Activation Key** text box.
2. Click **Update**. The system restarts to apply your changes.
3. Go to http://support.polycom.com and obtain your activation key from **Licensing & Product Registration**.

UI Customization

You can personalize the system appearance, for example, set the system name and login banner, or set your endpoint's interface language and background picture.

Customizing IVR

The Polycom RSS 4000 system provides IVR (Interactive Voice Response) service. After the endpoint dials the Polycom RSS 4000 system and gets connected, you can hear different IVR voice prompts when you receive the endpoint menu from the operating system.

To customize the IVR information:

1. Go to **Admin > UI Customization**.
2. Select the IVR information to be played and corresponding language option.
3. Click **Open**.

   The audio file to be uploaded must be in PCM format, and the sampling frequency must be 16 or 32 KHz, 16bit, and stereo or mono.
4. Click **Upload**.

   You can click to test and play the prompt voice.

Customizing Admin UI Logo

You can customize the logo displayed at the top of the Admin UI.

To customize the Logo picture of the web Management interface:

1. Go to **Admin > UI Customization**.
2. In the **Admin UI Logo** area, click **Open** to select the picture to be uploaded.

   The uploaded pictures must be in the *.png format, with 212 * 54 pixels.
3. Click **Upload**.

   After the picture is uploaded, you need to close the Internet Explorer and reopen it to see the new configuration.

Customizing Endpoint Menu

You can customize the default background picture and display language for your endpoint menu interface.

To customize the background picture of the endpoint menu:

1. Go to **Admin > UI Customization**.
2. In the **Endpoint Menu Background** area, click **Open** according to screen width/height ratios of participants' endpoint displays, and select the picture to be uploaded.

   The picture must meet the following requirements:

   - **4:3:** You are required to upload pictures in the *.bmp format, with 704 * 576 pixels.
   - **16:9**: You are required to upload pictures in the *.bmp format, with 1024 * 576 pixels.
3. Click **Upload**.

To change the default endpoint menu language:

1. Go to **Admin > UI Customizatio**n.
2. Select a default endpoint language and click **Apply**.
3. Confirm to restart the system.

Changing System Name

The system name displays on the endpoint or MCU system when they are connected to the Polycom RSS 4000 system.

To change the system name:

1. Go to **Admin > UI Customization**.
2. Enter your system name and click **Apply**.
3. Click **Reboot Now**.

Customizing the Login Banner

Login banner defines the Program Policy which appears when you log in to the system.

To customize the login banner:

1. Go to **Admin > UI Customization**.
2. In the **ACTIONS** list, click **Login Banner Setting**.

3 Select **Enable Login Banner**, and customize the banner message.

4 Click **OK**.

To cancel all changes and restore the system default banner settings, click **Restore Default**.

System Logs

The Polycom RSS 4000 system integrates HIDS (Host-based Intrusion Detection System) to enhance security by allowing the administrator and auditor to monitor access and modification to the system and files.

The logger utility is activated at the system startup and continually records system events. The log files generated by the utility contain the following information:

- Events occurred in system internal modules.
- Administrator activities.
- System login attempts.
- Unusual or malicious activities.
- Operation errors.

All log files generated the day before are automatically compressed into a .zip file named year-month-date.zip at 00:01:00 (GMT) every day. We recommend a maximum disk space of 5 GB for log files storage. You are prompted when the system reaches the storage limit. Auditors can delete logs to free the disk space.

Auditor Actions

The following table shows actions the auditor can perform from the Action list.

Action	Description
Refresh	Refreshes the list and adds newly generated log files.
Download	Downloads the selected log file.
Download Today's logs	Downloads all the log files generated today.
Delete Archived Logs	Removes the selected log file archive. Only users with the Auditor role can delete archives, and only archives that have been downloaded can be deleted.
Show Download History	Displays the Download History list for the selected log file archive, showing who downloaded the archive and when. This command is only available if the selected archive has been downloaded.

To download log files:

1. In the **Log** list, select the log to be saved.
2. In the **ACTIONS** list, click **Download**.
3. In the **Save Files** dialog box, select where to save this file, and then click **Save**.

This function is available to administrators and auditors only.

Email Settings

You can set an email address for your Polycom RSS 4000 system. This email address shows as the sender when the system sends meeting notification to the participants.

To set an email address for the Polycom RSS 4000 system:

1. Go to **Admin > Email Settings**.
2. Enter an email address and click **Update**.

Disk Warning

Administrators can set the system to display warning information once the free hard disk space reaches a certain threshold.

To set a hard disk warning threshold:

1. Go to **Admin > Disk Warning**.
2. Set a disk space threshold. You can set a value in the range of 10-50 G. when the free hard disk space reaches this threshold.

Log Settings

You can change the system logging strategy, configure warning limit, and enable remote logging.

To configure the log settings:

1. Go to **Admin > Log Settings**.
2. Configure the following settings:

Parameter	Description
Logger Level	Specify the system logging level, which decides to what level system events should be written into the rss_admin.log file. • **Info** – logs all non-debug messages. • **Debug** – logs all messages. • **Error** – logs the fewest number of messages.
Log Warning Capacity	Specify the percentage of log file capacity used at which the system displays a warning on the dashboard.
Enable SysLog	Specify whether to integrate the system with a syslog server for log collection and management. When a syslog sever is configured, the system forwards its log messages to the server automatically.

Restart and Shutdown

You can shut down or restart your system, or clean the system data and restore it to the factory default configuration.

Before unplugging the system, you need to shut it off using the Shutdown page to turn it off.

To restart or shut down your system:

1. Go to **Admin > Shut Down**.
2. Select **Restart** or **Shut Down**.

- All current configuration and recorded archives are cleared after the system is restored to the default configuration.
- Before the system restarts to complete restoring to the factory default configuration, please remove the USB device connected to the system. Otherwise, after the system restarts, you receive a default configuration setting dialog box when you try to log in to the Admin UI.

To restore the system to the factory default status:

Only the software version and system IP address can be reserved. You need an USB storage device to restore the system to the default settings. There is no requirement on USB device type and files it stores.

1. Connect the USB storage device to the USB port on the back panel of the system.

2 Log in to the Admin UI, and then go to **Admin > Shut Down**, click **Restart**.

3 After the system restarts, log in to the system's Admin UI again.

4 Configure the following settings:

Parameter	Description
Build-in Account	System built-in default administrator account. The user name and password can be modified here.
Password	
Confirm Password	Specify the confirm password.
Keep current IP setting	Specify whether or not the default configuration restoration reserves the current system IP address. If not selected, the system restores the default IP settings: • LAN1IP address: 192.168.1.254 • Subnet mask: 255.255.255.0 • Gateway: 192.168.1.1

5 Click **Next**. If you want to continue, click **YES**, and then click **OK**. Click **Back** to go back to the setting box.

6 Remove the USB storage device before the system restarts to complete restoration.

User Management

Users

Users who are defined in the Polycom RSS 4000 system can log in to the system's Admin UI to complete authorized operations. The system supports three user roles:

- User: Who can only view and edit limited pages, including:
  - Personal settings
  - Password modification (local user only)
  - Owned VRR
  - Archives and live streaming recorded by the owned or authorized VRR
  - Authorized archives
- Auditor: Who can only audit and manage system logs, delete logs, and set personal information.

- Administrator: Who can perform the most operations, and can view and configure all pages.

If the system is configured with an Active Directory server, users defined on the Active Directory can log in to the Polycom RSS 4000 system as ordinary users. When logging in to the system for the first time, Active Directory users are automatically added to the user list in the Polycom RSS 4000 system. You can import users from the Active Directory server as ordinary users first, then change the user role to auditor or administrator.

Viewing Users

Users page displays a list of defined users in the current system and associated summary information:

Parameter	Description
User ID	User ID used for web login.
Full Name	User full name.
Domain	User domain. LOCAL indicates that the user is a local user created in the system.
Role	User roles: **Administrator**, **Auditor** or **User**. Different roles determine the user operation permissions after logging in to pages. For more information, see User Permissions on page 17.
Status	A user can have four different statuses: • **Active**: User status is active. User can log in to the system. • **Disable**: User status is disabled. User cannot log in to the system. • **Locked**: User status is locked. User cannot log in to the system. If a user failed to login for a set condition, that user is locked by the system automatically. A locked user cannot log in to the system until lock has timed out, or the administrator has changed the status to **Active** manually. • **Inactive**: User status is inactive. User cannot log in to the system. If a user does not log in to the system for a set period of time, that user status automatically switches to Inactive. An inactive user cannot log in to the system until the administrator has changed the status to **Active** manually.
Description	Additional user information.

Adding a New User

You can add a local user to the system or import users from an Active Directory server to the system for management if the system is successfully configured with an Active Directory server.

To add a local user:

1 Go to **User > Users**.

2 In the **ACTIONS** list, click **Add Local User**.

3 Configure the following settings (* indicates mandatory options):

Parameter	Description
User ID	Specify the user ID used for web login. User ID must be unique with a length of 1-128 characters, and consist of alphanumeric or "_" symbol characters. Once created, user ID cannot be modified.
Full Name	Specify the user's full name.
Password	Specify the login password.
Confirm Password	Specify the confirm password which must be identical to the login password.
Role	User roles: **Administrator**, **Auditor** or **User**. Different roles determine the user operation permissions after logging in to pages. For more information, see User Permissions on page 17.
Description	Specify additional related information.

To import an Active Directory user:

1 Go to **User > Users**.

2 In the **ACTIONS** list, click **Import AD User**.

This button displays only when the system has been successfully configured with an Active Directory server.

3 Select a user from the list, and then click **OK**.

When a new user is added, the system automatically creates a VRR owned by that user.

Managing Users

The administrator can modify local user information and password, or delete user. For an Active Directory user, the administrator can only edit user status or delete that user.

To modify user information:

1 Go to **User > Users**.

2 Select the user entry you want to edit.

3 In the **ACTIONS** list, click **Edit**.

4 Enter the user information, and then click **OK**.

If the user is an Active Directory user, you can only modify its status.

To modify user password (local user only):

1 Go to **User > Users**.

2 Select the user entry you want to modify.

3 In the **ACTIONS** list, click **Set Password**.

4 Enter the new password and confirm password, then click **OK**.

After the password is changed by the administrator, the user is required to change the password when he logs in to the system using that password.

To delete a user:

1 Go to **User > Users**.

2 Select the user entry you want to delete.

3 In the **ACTIONS** list, click **Delete**.

A user's own VRR should be deleted before you can delete the user.

Groups

You can create user groups and set permissions for groups.

A default group, named All_Users, is built in the system. It includes all the users defined in the Polycom RSS 4000 system. All_Users group cannot be modified or deleted. Administrators can define a new group, modify or delete existing groups.

To view user groups:

>> Go to **User > Groups**.

Creating a New Group

To create a new user group:

1. Go to **User > Groups**.
2. In the **ACTIONS** list, click **Add**.
3. Specify a name for the group. The group name must be unique. You can enter associated descriptions if necessary.
4. Click **Group Members**.
5. Select users to add to the group, and then click **Add**.

   To delete an item, double-click it.

Managing Groups

To modify or delete an existing group:

1. Go to **User > Groups**.
2. Select the group entry you want to delete.
3. In the **ACTIONS** list, click **Edit** or **Delete**.

Virtual Recording Room (VRR)

A Virtual Recording Room (VRR) defines recording parameters and is created basing on recording templates. A VRR is identified by digits, and you can directly start recording using a specified VRR by adding the VRR number to the dial-in number.

A default VRR, named Default_VRR, is built in the system. When an endpoint or MCU tries to connect by dialing the Polycom RSS 4000 system's IP address or E.164 prefix, default VRR parameters are used for recording. You can modify the default VRR but cannot delete it.

Templates

A template is used to define a set of basic recording link parameters, such as the bandwidth for recording and live streaming, video quality, and whether to live stream. All Virtual Recording Rooms (VRR) are created based on templates. Changing parameters of a template may change the corresponding recording policies of the VRR using that template.

To view a recording template:

>> Go to **VRR > Templates**.

To define a recording template:

1 Go to **VRR > Templates**.

2 In the **ACTIONS** list, click **Add**.

3 Configure the following settings:

Parameter	Description
Name	Specify a unique name to identify this template.
Streaming Format	Specify the media format to be used for live streaming. **Note**: For use with live streaming to external servers, you must select **MP4**. For use with predetermined VRRs, you must select **WMV**.
Live Streaming	Specify whether to enable live streaming. If this option is enabled, the system live streams videos sent from an endpoint or MCU, and users can view them in real time by connecting to the Admin UI of the system. For more information, see Live Streaming on page 80.
Maximum Call Rate	Specify the maximum bandwidth that can be used by an endpoint or MCU to connect to the Polycom RSS 4000 system for recording and live streaming.
Video Quality	Specify video input priority: • **Motion** – Give higher priority to the motion in the record video. Accordingly the resolution may be lowered when the network bandwidth is low. It is best for recording people videos. • **Sharpness** – Give higher priority to the sharpness of the recorded video. Accordingly the frame rate may be lowered when the network bandwidth is low. It is usually used for recording content videos.
Primary Rate	Specify the bandwidth to be used for live streaming. **Note:** The primary rate should not exceed the rate set to Maximum Call Rate.
Secondary Rate	Specify whether to use a secondary lower bandwidth for live streaming. **Note*:*** The bandwidth cannot be set higher than **Primary Rate**. Select **None** to not use the secondary bandwidth.

Video & Content Layout	Specify the layout for displaying people and content videos when recording or live streaming dual stream. Users can choose from the following layouts: • **Dual window for content**: Displays people and content videos in two separate windows. This option does not apply to MP4 files. • **Single window small content**: Displays dual stream on a small split screen in one window. • **Single window medium content**: Displays dual stream on a medium sized split screen in one window. • **Single window large content**: Displays dual stream in a large split screen in one window. • **Single window no content**: Only displays people images without content. This option does not apply to MP4 streams. • **Single window video/content switch**: Alternately displays people and content in one window. When content is sent, the window displays content video. When no content is sent, the window displays people images. This option does not apply to MP4 streams.
Generate WMV Video file	Specify whether to generate also a WMV format video after recording. If this option is enabled, a WMV file icon appears in the archives in the list of format conversions after the recording ends.
Generate MP4 Video file	Specify whether to generate an MP4 format video after recording. If this option is enabled, an MP4 file icon appears in the archives in the list of format conversions after the recording ends.
Generate an MP3 audio file	Specify whether to convert files into MP3 audio format after recording. If this option is enabled, the MP3 file icon appears in the archives in the list of format conversions after the recording ends. This option is often required to be enabled when recording an audio-only call. Note: Polycom® RSS™ 4000 does not support G.728AB or Siren 14 32K.
Lost Packet Recovery (LPR)	Specify whether to enable the Lost Packet Recovery (LPR) capability. LPR can effectively improve the decreased video quality caused by network packet loss. This option takes effect only when the peer device enables LPR capability as well.
Restrict the recording to CIF/SIF resolution	Specify whether to restrict the bandwidth within the range of 1024Kbps. No matter what functions the endpoint has, calls made with this template are recorded using CIF/SIF resolution.

H.264 High Profile	Specify whether to enable the H.264 High Profile capability. H.264 high profile requires a much lower bandwidth than the traditional compression algorithms to achieve the high definition video, which dramatically reduces the use of network resources. This option takes effect only when the peer device enables the H.264 High Profile capability as well. **Note:** H.264 High Profile is available only in H.323 calls.
Generate a Polycom RealPresence Media Editor presentation file	Specify whether to generate a presentation file compatible with the Polycom RealPresence Media Editor. You can preview or edit the presentation using the Polycom RealPresence Media Editor application. If selected, also specify the **Snapshot Interval**. **Note**: The shorter the **Snapshot Interval**, the larger the presentation file size. The generated presentation file is a ZIP file which contains the following content: • A WMV format people video • JPG format snapshots from meeting content, if available • A .prp format project file.
Copy all media files to backup location	Specify whether to back up all media files to specified path in an FTP server. Make sure your FTP server can identify this set location. This option is only available when users have configured an FTP server for data backup. For more information, refer to FTP Server Configuration on page 44. If no backup location is set in the template, archives are backed up to the default location set in **Admin > Data Backup/Restore** page.

4 Click **OK**.

Managing Templates

You can edit or delete a created template.

To edit or delete a created template:

1 Go to **VRR > Templates**.

2 Click the template you want to change.

3 In the **ACTIONS** list, click **Edit** or **Delete**.

When you delete a user-defined template, all VRRs using that template are automatically changed to use the default template. However, ongoing recordings performed by these VRRs are not affected.

VRRs

You can pre-define a variety of record types for each recording by defining the VRR, to avoid over and over configuring the same recording parameters.

While creating a new user in the system, a VRR owned by the user is automatically generated. A VRR is identified by digits, and you can directly dial your own VRR to start recording by adding your VRR number to the dial-in number.

To define a VRR:

1. Go to **VRR > VRRs**.
2. In the **ACTIONS** list, click **Add**.
3. Configure the following settings (* indicates mandatory parameters).

Parameter	Description
VRR Name	Specify a unique name to identify the VRR. You can also use the default name generated by the system.
Use a Custom Name Prefix for the archive file names (Name Prefix+Date+Time)	Specify whether to assign a name prefix for the file recorded with this VRR. The user can organize and identify a large number of recorded files conveniently with a custom name prefix. If this option is selected, enter the name in **Custom Name Prefix**. The system automatically generates the file name in the following format according to the custom name and the date and time: Custom Name_Date_Time_Random Number. **Note:** Only letters, figures, _, space or multi-byte characters can be used for the name prefix, and the length is 4-20 characters.
VRR Number	Specify a number to identify the VRR. You can directly dial the VRR to record by adding the VRR number when dialing the Polycom RSS 4000 system. The number you entered must be unique and comprised of 4-8 digits. You can also use the number automatically generated by the system.
Owner	Specify the owner of this VRR. The default owner is administrator. In addition to the administrator, only the VRR owner can view and modify VRR parameters. **Note:** Each VRR must belong to a user. If the user is deleted, all VRRs owned by that user are automatically deleted.
Domain	Specify the domain that the owner belongs to. LOCAL indicates that the user is a local user created in the system.

Template	Specify the VRR template. The template defines the basic recording link parameters. The default template is selected by default. **Note**: For use with live streaming to external servers, you must select a template that sets **MP4** as the **Streaming Format**. For use with predetermined VRRs, you must select a template that sets **WMV** as the **Streaming Format**.
Key Words	Specify the keywords for archives recorded with the VRR. Keywords can be used to search archives easily and quickly in Archives list (Media > Archives). You can enter several related words within a length of 128 bytes.
Enable PIN Code for Playback	Specify whether to enable PIN code protection for the archive. If a PIN code is set, you must enter the correct PIN code to play the live streams or archives created using this VRR. After this option is selected, you must enter a PIN code consisting of 1-16 digits in **PIN Code**.
Recording Immediately	If this option is selected, the system immediately starts recording once you connect to the VRR. If deselected, you may need to manually start recording through the Admin UI or the TV UI. **Note**: You must select this option when you use recording reservation.
Email Notification	If this option is selected, once the VRR recorded video has completed its format conversion and is ready for viewing, the system sends an email message to the address set here. Separate several addresses with semicolons (;).
Default Recording Description	If necessary, you can enter additional VRR information, such as the owner and usage, in order to improve identification and classification management when there are many VRRs.

4 (Optional) Click the **Allowed User/Groups** tab to set allowed list for that VRR. Users and groups defined in the list can view or modify VRR recorded files or live streaming. For information about user and group settings, refer to User Management on page 54.

5 Double-click an item to add it to the allowed list.

To delete an item from the allowed list, double-click it.

To authorize a user to edit, check ☑ for that user in the allowed list.

6 (Optional) Click **Advanced Property** tab to configure the following settings:

Parameter	Description
Enable Multipoint VRR	Specify whether to enable multipoint VRR. You can select one of the layout: • **Lecture Mode**: Displays the lecture in the full screen. When a participant keeps speaking for 10 seconds, the system elects him or her as a lecturer. The lecturer switches between the two sites through the audio activation. • **CP Mode**: Displays the video of two sites side by side on the screen. For more information, see Multipoint Recording on page 66.
Enable Predetermined VRR	Specify whether to pre-create a live streaming link. If selected, specify the **Scheduled** time of the meeting**.** Specify also the following settings: **Permanent Reservation**: Specify whether the VRR is available permanently, even if no device calls in. **Idle Time to Live**: Specify an idle time in range of 5-120 minutes. The VRR is removed from the system automatically in the following scenarios. There is no device dial into the VRR for the time set here after the **Scheduled** time arrives. The device disconnected from the VRR for the time set here. For more information, see Predetermined VRR on page 65.
Enable External Media Servers	Specify whether to support external media servers. When select this option, you can: • Select one or more media servers to which you can live stream meetings. • Select one or more FTP servers to which you can transfer meeting recordings and view these recordings on demand later. **Note**: You need to configure external servers from **External Servers > Media servers** first. For more information, see To configure external media servers: on page 69

7 Click **OK**.

- Once a VRR is created, the VRR owner is automatically added to the allowed list and authorized to view and edit.
- Administrators are not limited by the allowed list, and have always permissions to view and edit VRR recorded files or live streaming.

Predetermined VRR

You can use predetermined VRRs to pre-create live streaming links. After you create a predetermined VRR, you receive an email titled "Your Reservation VRR [your predetermined VRR name] is ready!". The email contains the URL of the live stream.

When you create a meeting recording using a predetermined VRR, the system merely creates a live stream link for you, but not reserve the relevant resource for the meeting.

To create a reservation VRR:

1. Click **VRR > VRRs**.
2. In the **ACTIONS** list, click **Add**.
3. Click **General Properties**, configure the following:
   a. Select a template which enables live streaming, and select **WMV** as the **Streaming Format**.
   b. Select **Email Notification** and enter an email address.

      Live streaming information, including the recording URL are sent to this email after the creation of this VRR.
4. Click **Advanced Properties**, configure the following settings specific to the reservation VRR:

Parameter	Description
Enable Predetermined VRR	Specify a template with live streaming enabled.
Permanent Reservation	Specify whether the VRR is available permanently, even if no device calls in.
Scheduled	Specify the start time of the conference that you want to present in the email notification. This option is available when Permanent Reservation is not selected.
Idle Time to Live	Specify an idle time in range of 5-120 minutes. The VRR is removed from the system automatically in the following scenarios. • There is no device dial into the VRR for the time set here after the Start Time arrives. • The device disconnected from the VRR for the time set here.

5. For the rest configurations, refer to VRRs on page 62.
6. Click **OK** to complete the configuration.

The new VRR is displayed in the reservation list and at the same time a new item is added in the live streaming list.

Predetermined VRR does not reserve any video resources. You can create up to 20 concurrent reservation VRRs in the system. Make sure your system has been set with the accurate local time so it indicates the correct conference start time in the email notification.

Multipoint Recording

Multipoint recording allows you to set up a conference between two sites and record or live stream the conference video without needing a MCU. The multipoint recording is activated when two participants connect to a multipoint recording room on the Polycom® RSS™ 4000 system.

Each participant in a multipoint recording sees the peer site image. If only one participant connects, the participant's screen displays the loopback image. When the recording or live streaming is ended, the system generates the video files with the combined images of two sites displaying side-by-side or alternately. If H.239 content is being sent during a recording, the content image is also shown in the conference and recorded.

During a multipoint recording, both sites can display and interact with the system TV user interface for managing the recording, but only one site can control at a time. For more information about the TV UI, refer to TV User Interface Operation on page 95.

Polycom RMX series systems that support the **Recording Link** can be connected to the multipoint meeting room as a participant as well.

The multipoint recording has the following limitations:

- The quick code is not supported for archives generated from the multipoint recordings for playback.
- Participants in a multipoint recording cannot view archives stored in the system through the TV interface.

You can create a multipoint recording room by defining a multipoint VRR in the Polycom® RSS™ 4000 system. Dialing into a multipoint VRR sets up a multipoint recording room between the two sites.

To define a multipoint VRR:

1. Go to **VRR > VRRs**.
2. In the **ACTIONS** list, click **Add**.

3 Click **Advanced Property** tab to configure the following settings.

Parameter	Description
Enable Multipoint VRR	Enable multipoint VRR. You can select one of the layout: • **Lecture Mode**: Displays the lecture in the full screen. When a participant keeps speaking for 10 seconds, the system elects him or her as a lecturer. The lecturer switches between the two sites through the audio activation. • **CP Mode**: Displays the video of two sites side by side on the screen.

4 For other options in the page, refer to VRRs on page 62.

5 Click **OK** to complete the configuration.

Dialing in to a VRR to Start Recording

You can start recording using a user-defined VRR in one of the following two ways:

- Dialing the VRR through an endpoint remote control.
- Dialing out from VRR using the web Management page to connecting the endpoint. For more information about recording using the Admin UI, refer to Starting a Recording on page 11.

When an endpoint or MCU tries to connect by directly dialing the IP address or E.164 prefix of the Polycom RSS 4000 system, the default VRR parameters are used to record. You can directly start recording using recording parameters defined in a VRR by adding the VRR number to the dial-in number.

If the Polycom RSS 4000 system is configured in connection with a Polycom RMX series system through the recording link, you can specify the VRR to be used by adding the VRR number in the **Recording Link** field on the Polycom RMX system. For more information, refer to the Polycom RMX system Administrator's Guide.

To dial in VRR through an endpoint's remote control:

- If the Polycom RSS 4000 system and the endpoint are both registered to a gatekeeper, the dial-in number is [RSS E.164 suffix][VRR number].

  For example, if the Polycom RSS 4000 system's E.164 is 1234 and your VRR number is 1000, you may dial "12341000".

- If the Polycom RSS 4000 system and the endpoint are both registered to a SIP server, the dial-in number is [VRR number]@[RSS IP address].

  For example, if your VRR number is 1000 and the Polycom ® RSS™ 4000 IP address is 172.21.110.2, you may dial "1000@172.21.110.2".

- If the network is not configured with a gatekeeper or SIP server, the dial-in number is [RSS IP address]##[VRR number].

For example, if the Polycom RSS 4000 system's IP address is 172.21.110.2 and your VRR number is 1000, you may dial "172.21.110.2##1000".

Managing VRRs

An administrator can edit or delete a created VRR.

To edit or delete a VRR:

1. Go to **VRR > VRRs**.
2. Click the VRR entry you want to edit or delete.
3. In the **ACTIONS** list, click **Edit** or **Delete**.

The archives recorded with a VRR should be deleted before you can delete the VRR.

External Servers

You can now stream live meetings (MCU calls), point to point calls (endpoint to RSS), and on demand meeting archives in MP4 format to leading 3rd party media servers, such as Wowza, QuickTime Streaming Server, and IIS7 Media Service (smoothly streaming only). This feature expands the streaming audience capacity of the Polycom RSS 4000 system.

Users can watch these MP4 streams and on demand meeting archives hosted on external media servers from within the Admin UI, or from the Viewer Portal.

You can also save recordings to your FTP servers, or to the FTP servers installed with the external media servers, and then view the recordings on demand.

To stream meetings to an external server, you must first configure the external server, and then select a VRR that selects the option **Enable External Media Servers**.

If your organization also deploys a Polycom Real Presence Media Manager (PRMM, version 6 or later), you can leverage its more powerful content management capability to view the RSS 4000 live WMV streams.

For more information, see *the Integration Procedure of the Polycom RSS 4000 System and Accordent Media Management System* from http://support.polycom.com.

Live Streaming Meetings to External Media Servers

To live stream meetings to an external server, you need to do the following steps:

1. Configure external media servers.

2 Configure a template that uses **MP4** as the **Streaming Format**.

3 Configure a VRR that enables external media server, and uses the template which uses **MP4** as the **Streaming Format**.

4 Record a meeting using the VRR that has the FTP server enabled.

Media files of the format MP3, MP4, and WMV are sent to these FTP servers.

To configure external media servers:

1 Go to **External Servers > Media Servers**.

2 On the **ACTION** panel, click **Add**.

3 Configure the following basic settings.

Parameter	Description
Server Name	Specify the name of the external server.
Server Type	Specify an external streaming server: • **IIS-7 Media Server** • **Wowza Media Server** • **QuickTime Streaming Server**
Server IP	Specify the IP address of the external server you selected.
Server Port	Specifies the port that the RSS 4000 system uses to send the encoded MP4 live streams to the external server. Following are the default ports: • **IIS-7 Media Server**: 80 • **Wowza Media Server**: 1935 • **QuickTime Streaming Server**: 554 **Note**: Valid port values range from 1-65536. The port number must be the same as set in the corresponding external media server. If a firewall sits between the RSS 4000 system and the external server, make sure that rules are set to allow the two-way communication between the RSS 4000 system and the external server.

4 Specify whether to enable **Live Streaming**. If enabled, also configure the following settings:

Parameter	Description
Application Name	Specify the name of the external media server's application to be used for the live streaming. **Note**: Contact the administrator of the external media server for the naming rule of the application name.
Publishing Port Name	Specify a name for the publishing point. **Note**: Contact the administrator of the external media server for the naming rule of the application name. **Note**: If the publishing point name contains the suffix *.sdp* and you use the QuickTime Player to view the live stream, the QuickTime Player opens as an embedded window; otherwise, as a pop-up window.
User Name	Specify the user name to access the external media server.
Password	Specify the password to access the external media server.

5 Specify whether to stream video on demand (VoD) from this server. If enabled, also configure the following settings:

Parameter	Description
Application Name	Specify the media server's application name. **Note**: Contact the administrator of the external media server for the naming rule of the application name.
User Name	Specify your user name to access the external media server.
Password	Specify your password to access the external media server.

6 When **Video on Demand** is enabled, configure the following settings to transfer generated recordings to the pre-installed FTP server of the external server:

Parameter	Description
FTP IP	Specify the IP address of the external server's FTP server.
FTP Port	Specify the port assigned to the external server's FTP server. The default port is 21.
User Name	Specify your user name to access this FTP server.
Password	Specify your password to access this FTP server.
Default Path	Specify the default FTP directory to save your recordings. Use / to represent the root directory.
Enable SSL	Specify whether to enable SSL encryption for the communication between the Polycom RSS 4000 system and the FTP server.

7 Click **OK**.

When **Video on Demand** is enabled, the Polycom RSS system transfers all available media files (MP4, MP3, and WMV) to the specified FTP server. However, only MP4 files are playable as the VoD streams at this time.

To create a VRR for use with an external server:

1 Go to **VRR > VRRs**.

2 In the **ACTIONS** list, click **Add**.

3 Click **General Properties** tab to configure the following setting:

Parameter	Description
Template	Click **Select** and then select a **Template** that uses **MP4** as the **Streaming Format**.

4 Click **Advanced Properties** tab to configure the following setting:

Parameter	Description
Enable External Media Servers	Select this option to support external media servers. You can: • Select one or more media servers to which you can live stream meetings. • Select one or more FTP servers to which you can transfer meeting recordings (VoD files) and view these recordings as on demand streams later. **Note**: You need to configure external servers from **External Servers > Media Servers** first.

5 To configure the rest of the settings, refer to To define a VRR: on page 62.

6 Click **OK**.

- Once a VRR is created, the VRR owner is automatically added to the allowed list and authorized to view and edit.
- Administrators are not limited by the allowed list, and have permissions to view and edit VRR recorded files or live streams.

To avoid multiple VRRs from using the same external server & publishing point combination for live MP4 streaming, each RSS external server & publishing point configuration can only be used by one VRR. This limitation is enforced to prevent several VRRs from trying to stream different videoconferences to the same external media server publishing point.

To live stream a meeting to external servers:

1 Do one of the following:

- Make a call to the Polycom RSS 4000 system.
- Call an interoperable endpoint, or join an MCU-hosted meeting from the Polycom RSS 4000 system by using a VRR configured for use with external servers.

  For more information, see Starting a Recording on page 11.

2 When the connection between the Polycom RSS 4000 system and the endpoint is established, you can click to start recording.

The recording and live streaming start immediately if **Recording Immediately** is enabled in the selected VRR.

For more information on how to view live streams, see Viewing Live Streams on page 14.

Transferring Recordings to FTP servers

Besides using the integrated FTP service provided by external servers, you can also transfer recordings to your own FTP servers.

To transfer meeting recordings to an FTP server, you need to do the following steps:

1 Configure one or several FTP servers.

2 Configure a template that uses MP4 as the **Streaming Format**.

3 Configure a VRR that selects a FTP server as its external media server.

4 Record a meeting using the VRR that has the FTP server enabled.

Media files of the format MP3, MP4, and WMV are sent to the specified FTP servers.

To configure your own FTP servers:

1 Go to **External Servers > Media Servers**.

2 On the **ACTION** panel, click **Add**.

3 Configure the following settings:

Parameter	Description
Server Name	Specify the name of your FTP server.
Server Type	Select **FTP Server.**
FTP IP	Specify the IP address of the external server's FTP server.
FTP Port	Specify the port assigned to the external server's FTP server. The default port is 21.
User Name	Specify your user name to access this FTP server.

Parameter	Description
Password	Specify your password to access this FTP server.
Default Path	Specify the default FTP directory to save your recordings. Use / to represent the root directory.
Enable SSL	Specify whether to enable SSL encryption for the communication between the Polycom RSS 4000 system and the FTP server.

4 Click **OK**.

To transfer meeting recordings to FTP servers:

1 Do one of the following:

- Make a call to the Polycom RSS 4000 system.
- Call an interoperable endpoint, or join an MCU-hosted meeting from the Polycom RSS 4000 system by using a VRR configured for use with external servers.

  For more information, see Starting a Recording on page 11.

2 When the connection between the Polycom RSS 4000 system and the endpoint is established, you can click to start recording.

The recording is transferred to the specified FTP server upon the completion of the recording and code conversion.

Media Management

You can archive your conferences and manage your archives.

The recording and live streaming start immediately if **Recording Immediately** is enabled in the selected VRR.

Archives

You can view all files recorded by the Polycom RSS 4000 system in the **Media > Archives** page.

An administrator can view, play back, delete, download, or re-transcode these media files. An ordinary user can only view the following types of archives:

- Meeting archives recorded by the VRR created by the user.
- Meeting archives recorded by the VRR for which the user has been added to the allowed list.

- Meeting archives for which the user has been added to the allowed list.

Viewing Archive Details

On the **Media > Archive** page, administrators and authorized users can view a summary of each archive. Users can also click an archive to view its details:

Parameter	Description
Name	The name of the archive.
Duration	The duration of the archive.
Video Type	The video protocol used by the archive.
Audio Type	The audio protocol used by the archive.
Content Type	The existence of H.239 dual stream recording.
Create priority	The priority for archive transcoding.
Key words	The keywords for this archive.
Description	The description for this archive.
Play URLs	Copy the URL of playing the archive to the clipboard. For archives recorded in two different bandwidths, clicking the **Copy** link will copy two URLs. You can also click to play back the archive, or to multicast it, if these icons are available.

Playing Back and Downloading Archives

The Polycom RSS 4000 system can save recorded videos into different formats, layouts and bit rates, including:

- **Raw**: Raw bit stream is automatically generated after the system completes the recording. This file can be played back through the TV UI and downloaded for investigating.

  The Raw files are stored in a proprietary format. They are used as the source file to generate other media formats.

- **WMV:** WMV is a common "container" for Windows Media files. You can play back WMV files from the Admin UI, Viewer Portal, or on a Windows PC.

  The WMV files are generated only when the **Generate WMV Video File** option is selected in the recording template

- **MP4:** MP4 archives (Also known as H.264 streaming files) can be downloaded to PCs, Macs, or to compatible digital media devices, such as iPhone and iPad.

  The MP4 files are generated only when the **MP4** option is selected in the recording template.

- **MP3**: MP3 can be downloaded to PCs, MACs, or to compatible digital media devices that support MP3 files.

  The MP3 files are generated only when the option **Generate MP3 Audio File** is selected in the recording template.

- **ZIP**: ZIP is a file format used for data compression and archiving.

  A ZIP file is generated upon the completion of the recording transcoding if your recording template enables **Generate a Polycom RealPresence Media Editor presentation file**.

Archive Status

There are four statuses for the recorded file to indicate whether this file can be played or downloaded:

- **Ready**: The file can be played and downloaded.
- **Transcoding**: The archive is currently being converted, and thus is temporarily unavailable.
- **Waiting**: The archive is waiting to be converted and thus is temporarily unavailable.
- **Error**: Error occurred during the file conversion. The archive is unavailable.
- **Stopped**: The transcoding is stopped. The archive is unavailable.

To play back archives through the Admin UI:

You can only use a PC running a compatible Microsoft Internet Explorer and media player to view archives.

To see the supported media players, please refer to the *Release Notes for the Polycom RSS 4000, Version 8.0* on http://support.polycom.com.

1. Go to **Media > Archives**.
2. Select the archive you want to play back.
3. Click and the Viewer Portal opens to play the video.

Make sure the archive's status is **Ready** before playing it back (with in the **Archive Detail** area). You can also click **Archive Files** to expand its property pane and check the status. indicates the archive is temporarily unavailable, you may need to wait until the format conversion is completed (for example, the status is **Ready**).

If the email notification function has been enabled for the VRR which is used to record archives, the system sends you an email notification automatically once all archives have been converted and are ready for web playback. For more information, see Archives on page 73.

To download one or several archives:

1. Go to **Media > Archives**.
2. In the archives list, select the archive you want to download, or holding down the Shift or Ctrl key while clicking the archives to select several archives.

   You can only download archives of the status **Ready**.
3. In the **ACTIONS** list, click **Download**.
4. Select one or several media types to download.
5. Specify where to save the file, and click **Save**.

Archives downloaded as a .tar file and are named by default with the current date and user role, for example, *2011-06-06_admin.tar*. So if you download archives more than one time in a day, make sure to rename the .tar files to avoid file overwriting.

Modifying Archives

You can edit archives recorded by your own VRR or archives that you are authorized to modify.

To modify archive properties:

1. Go to **Media > Archives**.
2. Double-click the archive entry you want to modify.
3. If you are authorized to modify the archive, you can modify following parameters:

Parameter	Description
Name	Specify the name of the archive. **Note:** Only letters, figures, _, space or multi-byte characters can be used for the file name, and the length is 4-20 characters.
Enable PIN Code for Playback	Specify whether to enable PIN code protection for the archive. If a PIN code is set, you must enter the correct PIN code to play the live streams or archives created using this VRR. After this option is selected, you must enter a PIN code consisting of 1-16 digits in **PIN Code**.

Description	Specify additional information related to the archive.
Create Priority	Specify whether to set high priority for this archive. Archives with priority are transcoded before these non-priority ones.
Key Words	Specify the keywords for this archive. Keywords can be used to search archives in the **Archives** list. You can enter several related words within a length of 128 bytes.

4 If you want to change the a list of users who can view or modify the archive, click the **Allowed Users/Groups** tab.

5 Double-click an item in the list and click **Add**.

- To delete an item, double-click it.
- To authorize a user to edit, select ☑.

6 Click **OK**.

Using Dynamic Archiving

You can view all media files included in an archive, create new media output formats on the fly, stop ongoing media file creation, or delete existing media files. You can also restart transcoding after you stop the transcoding, or when there is transcoding error.

To view media files included in an archive:

1 Go to **Media > Archives**.

2 In the archives list, select an archive.

3 On the ACTION panel, click **Media Files**. Media files can have the following status:

Status	Description
Ready	File created and ready to use.
Waiting	File waiting to be transcoded.
Transcoding	File in transcoding.
Error	File transcoding error.
Stopped	File creation stopped.

4 Click **Close** to exit the **Media Files** window.

To add new media files:

1 Go to **Media > Archives**.

2 In the archives list, select an archive.

3 On the ACTION panel, click **Media Files**.

4 Click **Add**.

5 Configure the following settings:

Parameter	Description
Target Device	Specify on which device you intend to play back the new media file. The system selects a default rate and resolution when you select a device. You can change them to suit your needs.
Rate	Specify the media rate.
Resolution	Specify the media frame resolution.
Layout	Specify the layout for displaying people and content video. You can choose from the following layouts: • **Single window large content**: Displays people video and content in a split window, with content taking the larger part of the window. • **Single window medium content**: Displays people video and content in an evenly split window. • **Single window small content**: Displays people video and content in a split window, with content taking the smaller part of the window. **Note**: If there is no content sharing, you view one window only.
Media Type	Specify the output media file format.
Video Type	Specify the output video type.
Display Name	Specify the name of the output file. To make the display name more meaningful, we suggest you include key file information into the display name. For example, Project Meeting_MP4(384 kbps).

6 Click **OK,** and then click **Close.**

Available options vary with your settings.

To edit the display name of an archive file:

1 Go to **Media > Archives**.

2 In the archives list, select an archive.

3 On the ACTION panel, click **Media Files**.

4 Click a media file, and then click **Display Name**.

5 Enter new display name and click **OK**.

6 To close the window, click **Close**.

To delete a media file:

1 Go to **Media > Archives**.

2 In the archives list, select an archive.

3 On the ACTION panel, click **Media Files**.

4 Click a media file to be deleted, and then click **Delete**.

5 Click **OK,** and then click **Close.**

You cannot delete the following media files:
- Files of the status **Transcoding** or **Waiting**
- Files of the RAW or ZIP format

Original RAW files are marked with beside their media type name.

To restart a media file:

1 Go to **Media > Archives**.

2 In the archives list, select an archive.

3 On the ACTION panel, click **Media Files**.

4 Click a media file to be restarted, and then click **Restart**.

5 Click **OK,** and then click **Close**.

You cannot restart transcoding the following files:
- Files of the status **Transcoding** or **Waiting**
- Files of the original RAW format

To stop an ongoing transcoding:

1 Go to **Media > Archives**.

2 In the archives list, select an archive.

3 On the ACTION panel, click **Media Files**.

4 Click a media file of the status **Transcoding** or **Waiting**, and then click **Stop**.

5 Click **OK,** and then click **Close**.

You cannot stop transcoding files of the status **Ready**, **Error**, or **Stopped.**

Quick Code

A quick code is generated automatically for every archive after the system completes a recording. You can view the recorded video by the quick code using the remote control of an interoperable endpoint.

Quick code is not supported in SIP calls, or recordings created using multipoint VRRs.

To see a list of compatible endpoints, please refer to the *Release Notes for the Polycom RSS 4000 8.0* on http://support.polycom.com.

To view the quick code of an archive:

1. Go to **Media > Archives**.
2. Double-click an archive.The quick code is displayed in the **Properties** page of archives.

To play back archives using the quick code:

>> Dial using one of the following formats:

- If the system has been registered to a gatekeeper, dial [RSS E.164 prefix][Quick Code]#

  For example, if the E.164 prefix of the Polycom RSS 4000 system is 1234 and the quick code of the file to be played back is 567890, dial 1234567890#

- If the system has not been registered to a gatekeeper, dial [RSS IP address]##[Quick Code]#

  For example, if the IP address of the Polycom RSS 4000 system is 10.1.2.3 and the quick code of the file to be played back is 567890, dial 10.1.2.3##567890#

  If you are asked to enter the PIN code, enter the PIN code using the remote control and then press #. To exit playing and return to the file list during the playback, press the up arrow button of the remote control.

- The quick code playback is available only in H.323 calls when playing back archives that were not recorded with a multipoint VRR.
- If the bandwidth at which a user endpoint is connected with the Polycom RSS 4000 system is lower than the bandwidth originally used to create the archives, then the videos cannot be played back successfully on that endpoint's screen.

Live Streaming

The Polycom RSS 4000 system supports live streaming of video sources, such as live video conference or dual stream sent by endpoints or MCUs with a highest resolution of 720p and a maximum bandwidth of 4M. You can view meeting videos and the second channel of dual stream in real time by

connecting to the Polycom RSS 4000 Admin UI or viewer portal directly through network, without using endpoint devices. Those live streaming videos are saved in the system.

Live streaming supports dual streaming rates, this allows you to choose the appropriate bandwidth to view video based on your network condition.

Starting a Live Streaming

Make sure that live streaming has been enabled for the recording template you are using before starting live streaming. For more information, see To define a recording template: on page 59.

Procedure for starting a live streaming is the same as the one for starting recording. For more information, see Predetermined VRR on page 65.

You cannot pause during live streaming.

Viewing Live Streaming Information

If live streaming is in progress on the system, the current live streaming list displays on the Live Streaming page. Go to **Media > Live Streaming** in the menu bar at the top of the page to enter the **Live Streaming** page.

On this page, ordinary users can only see the following two types of live streaming content:

- Live streaming performed by users' own VRR.
- Live streaming performed by the VRR for which the user has been added to the allowed list.

The live streaming list displays live streaming summary, such as live streaming name, owner, VRR number used, and creation time. You can also click a specific live streaming content to check its details in the Live Streaming Details area on the right side of the page.

Viewing Live Streaming Video

When the system starts live streaming, you can view the video being live streamed in real time on the Live Streaming page.

To view live streaming in progress:

1. Go to **Media > Live Streaming**.
2. Select the live streaming content you want to view in the list, and then click **Play** in the **Live Streaming Details** area on the right side of the page. The system's Viewer Portal opens to play the video.

If the live streaming content uses two different bandwidths, two **Play** buttons with their bandwidths appear in this area, and you may choose the appropriate bandwidth to play based on your network condition.

Live Streaming Resources Usage

The number of resources supported by the Polycom RSS 4000 system for live streaming the video depends on the system model you purchased. The following table shows the relationship between the model and the resources it supports.

Model	Resources Required
Small	4
Medium	6
Large	8

The combination of frame rate, resolution, number of rates used and video layout affects the number of resources required on the Polycom RSS 4000 system to support live streaming. For information about setting the rates and the video layout, see Live Streaming on page 80. The following table shows the relationship between those aspects and the amount of resources that are used.

Recording with Live Streaming Properties				Resources Required
Recording Resolution (People Video)	Live Streaming Resolution (WMV File)	Rates Used	Video Layout	
CIF/4CIF/720p 30 fps	CIF/4CIF/720p 30 fps	1	Single Window	1
			Dual Window	2
		2	Single Window	2
			Dual Window	4
1080p 30fps/ 720p 60 fps	720p 30 fps	1	Single Window	2
			Dual Window	3
		2	Single Window	3
			Dual Window	5

Referring to the above table, you can easy calculate the number of live streams supported by the system in concrete scenarios.

Taken a Small model system that supports four resources as the example. If there is an ongoing live streaming sending video at 720p 30 fps and recording video at 1080p 30 fps/720p 60 fps, using two rates and single window layout,

it occupies three resources on the system. Then there is one resource free, which allows for running one live stream at CIF/4CIF/720p 30 fps, using a single rate and single window layout concurrently.

The following table shows the maximum capacity of the Polycom RSS 4000 systems when perform the live streaming of different parameters:

Recording with Live Streaming Properties				Maximum Capacity		
Recording Resolution (People Video)	**Live Streaming Resolution (WMV File)**	**Rates Used**	**Video Layout**	**Small**	**Medium**	**Large**
CIF/4CIF/ 720p 30 fps	CIF/4CIF/ 720p 30 fps	1	Single Window	4	6	8
			Dual Window	2	3	4
		2	Single Window	2	3	4
			Dual Window	1	1	2
1080p 30fps/ 720p 60 fps	720p 30 fps	1	Single Window	2	3	4
			Dual Window	1	2	2
		2	Single Window	1	2	2
			Dual Window	1	1	1

Multicast

The Polycom RSS 4000 system supports the video multicast function and can send video streams to a group of computers at the same time. Users can play multicast videos by accessing the system's Admin UI. Only the use of the Internet Explorer browser is supported.

Before you use the multicast function, make sure that this option has been activated by your system administrator, and that you have installed multicast controls in the browser. For more information, see (Optional) Installing Multicast Controls on page 9.

If using the Windows operating system, you must log in as an administrator in order to successfully install the controls. Ordinary users cannot install multicast controls.

Multicast of an Archive or a Live Streaming Video

Users can start a multicast from the archives or the live streaming list. The system supports up to 20 concurrent multicast channels.

You can only multicast media files with WMV streaming format.

Streaming format is defined in meeting templates. For more information, seeTo define a recording template: on page 59.

To start a multicast:

1. Go to **Media > Archives**.
2. Select the archive for multicasting.
3. **In the Archive Details page**, click .

   When the button changes into , it indicates that this archive is undergoing multicast. To stop the multicast, click this button again to return it to .

   To put a live streaming video into a state of multicast, Go to **Media > Live Streaming**, and then start the multicast (see the steps described above).

Viewing Multicast Video

Users can play multicast videos from the system's Admin UI. All ongoing multicasts are displayed in the multicast list and disappear after the multicasts end.

To view a multicast video:

1. Go to **Media > Multicast**.
2. Select the video to be viewed from the multicast list.

   In the **ACTIONS** list, click **View Multicast**. The system opens Windows Media Player automatically to play the video selected.

Ordinary users can only stop the multicasts they have started.

The system cannot perform the cycling of multicast videos. The multicast ends automatically when the playing of the video ends.

My Settings

You can set your own account information and change your password on the personal settings page.

This feature is available only when you log in as a user, or an auditor.

To view my settings:

>> Go to **My Setting > My Setting**.

To modify personal settings:

1 Configure the following settings:

Parameter	Description
Full Name	Specify your full name.
Description	Specify additional related information.

2 Click **Update**. The system restarts to apply your changes.

To change the password:

1 In the **ACTIONS** list, click **Change My Password**.

2 Enter your old password, enter and confirm your new password, and then click **OK**.

If successful, you are prompted that your password has been successfully changed. Otherwise, you have to follow instructions to set an appropriate password.

Only local users created in the Polycom RSS 4000 system can change their passwords. This function is not available to Active Directory server users.

3

Using the RSS 4000 TV User Interface

This chapter presents how to use the TV user interface of the Polycom RSS 4000 system. It contains the following sections:

- Introduction to Main Menu Page on page 88
- Start Recording Using the TV User Interface on page 90
- Viewing Archives Using the TV User Interface on page 90

Introduction to Main Menu Page

In addition to the Admin UI, the Polycom RSS 4000 system also provides a TV user interface for end users to perform the most commonly used operations using the remote control. The TV user interface appears after an endpoint dials the Polycom RSS 4000 system and sets up a connection successfully.

You can also show the menu by pressing the remote control.

To display the TV user interface in a multipoint recording:

>> Press the Left button, or DTMF key 4.

To hide the TV user interface in a multipoint recording:

>> Press the Zoom out button, or DTMF key 9.

After the endpoint sets up connection with the Polycom RSS 4000 system, it enters the TV user interface menu page, where common recording and playback options are provided, as shown below.

If the **Recording Immediately** function has been enabled in the VRR used by the endpoint for dialing, the endpoint enters **Recording** page directly. When the recording is stopped or cancelled, the endpoint returns back to the main menu page.You can control the Polycom RSS 4000 system using the FECC and DTMF functions of the remote control. When your endpoint supports FECC or DTMF, use the remote control to operate the TV user interface menu page. You need to press the far end button on the endpoint's remote control to access the TV user interface.

The table below defines in detail the FECC and DTMF operation keys on the remote control of Polycom endpoint.

Scenario	FECC	DTMF	Description
When in the menu display state	←	4	Return to the higher-level menu.
	→	6	• Go to the lower-level menu. • Confirm the selection.
	↑	2	Select upward (cyclic).
	↓	8	Select downward (cyclic).
	Zoom In	-	Turn to the next page if the menu items cannot be displayed on one page.
	Zoom Out	-	Turn to the previous page if the menu items cannot be displayed on one page.
When in the video playing state	-	*1	Pause the current video.
	-	*2	Resumes a paused video.
	↑	*3	Stops playback of the current video and returns to the main menu.
	←	*4	Reverses the current video. Reverse will stop at the previous I-frame. The web UI can be used to set the interval between I-frames. The Polycom RSS 4000 system has a default interval between I-frames of one minute; the interval can be set as 1-10 minutes.
	→	*6	Fast forwards the current video. Fast forward will stop at the next I-frame. The web UI can be used to set the interval between I-frames. The Polycom RSS 4000 system has a default interval between I-frames of one minute; the interval can be set from 1-10 minutes.
	-	0-9	Quickly jumps through video playback, from 0% to 90% play time positions); after jumping, the video will start to play from the nearest I-frame. For example, the DTMF tone 7 will jump 70% of the way through the video file.

When in the inputting state	-	0-9	Input numbers.
	-	?	Confirm the input.
	←	-	Delete the character before the cursor.

Start Recording Using the TV User Interface

You can use the up/down arrow buttons of the remote control to select Start Recording, then press the right arrow button to enter the Recording menu page.

You can choose to start recording directly or set a PIN code for recording. If you set a PIN code for the video to be recorded, you must input the correct PIN code to play back the video.

To set PIN code:

1. On the **Recording** page, select **Set PIN Code** and then press the right arrow button to confirm the operation.
2. On the **PIN code setting** page, enter the PIN code (consisting up to 16 digits) through the number keypad on the remote control.
3. Press "#" to confirm the operation, or press the left arrow button to exit the set-up and return to the Recording page.

To start recording:

>> On the **Recording** page, select **Start** and press the right arrow button to confirm the operation.

A blinking indicates that the recording is in progress.

- During recording, you can press the left arrow button to watch the endpoint loopback video that is being recorded, or press the right arrow button to close the loopback video and switch back to the menu page.
- If the video is being played through live streaming, the Pause function cannot be used.

Viewing Archives Using the TV User Interface

The user can view not only the files recorded by the currently dialed-in VRR, but also all video files recorded and saved into the current Polycom RSS 4000 system.

If the bandwidth at which a user endpoint connected with the Polycom RSS 4000 system is lower than the bandwidth for certain recorded files, such files would not display on that endpoint's screen.

Participants in a multipoint recording cannot view archives through the TV user interface.

To view the videos recorded by current VRR:

1 Select **View VRR Archives** and press the right arrow button.

2 Select a file and press the right arrow button.

You can use the up/down arrow buttons to select the file, and press Zoom out/Zoom in to turn page.

When you highlight a file, its related information, such as record time, duration and VRR used appears on screen.

3 When asked to input the PIN code, you can input the correct PIN code and then press "#".

If the PIN code you input is wrong, the system returns to the File List page.

During the playback of video, you can press the up arrow button to exit playing and return to the file list.

To view all videos recorded on the Polycom RSS 4000 system:

>> Select **View All Archives**, and then press the right arrow button.

4

Using the RSS 4000 Viewer Portal

This chapter presents how to use the Viewer Portal of the Polycom RSS 4000 system.

Using the Polycom RSS 4000 Viewer Portal

In addition to the Admin UI, the Polycom RSS 4000 system also provides an HTML interface for you to view and play archives, live streams or reserve meeting recordings.

You can log in to the Viewer portal as a user or as an administrator. However, the archives and live streaming available to each role may vary according to **Allowed Users/Groups** settings in the corresponding VRR.

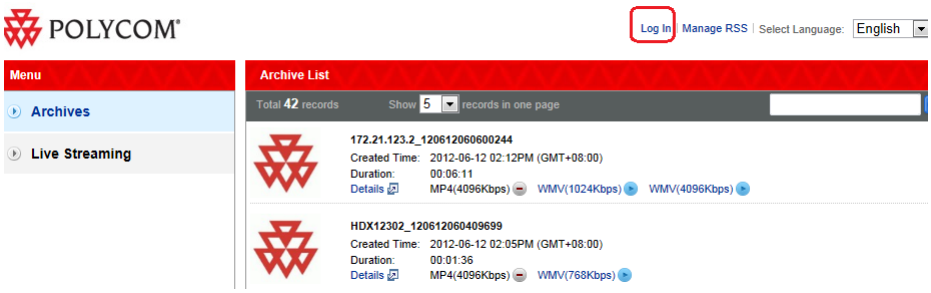
The authorities of each role are as the following:

Authorities	Administrator	User	Auditor	Anonymous access
View live streaming	Yes	Yes	No	Yes
Access archives	Yes	Yes	No	Yes
Recording reservation	Yes	Yes	No	No

To log in to the viewer portal:

1. Run the web browser on your computer.
2. In the browser address line, enter the system's portal address, **https://System IP**. For example, https://172.21.126.81.

3 Click **Log In** at the upper right of the screen.



4 Do one of the following:

- Enter your user ID and password, then click **Log in**. The portal login credential is the same as you use for Admin UI login.
- To log in as a guest, click **Anonymous Acces**s.

If you don't log in, or log in as an anonymous user, you can still view archives and live streaming.

If you log in to the Polycom RSS 4000 system from its Viewer Portal as an anonymous user, your **User ID** appears in the **Web Connection** list as **Anonymous**.

Managing Archives and Live Streams Using the Viewer Portal

You can view live streaming and play back archives from the Viewer Portal.

To view archives and live streams, your device must turn off the pop-up blocker. For example:

- For iPad: From **Settings > Safari**, make sure the option **Block Pop-ups** is **OFF**.
- For Android devices: From **Browser > Settings > Advanced**, make sure the option **Block Pop-ups** is **OFF**.
- For PC Internet Explorer (version 7, 8, and 9): From **Tools > Internet Options > Privacy**, make sure the option **Turn on Pop-up Blocker** is NOT selected.

You cannot view files whose play icon appears as . This icon indicates one of the following situations:

- The file is currently in **Waiting** or **Transcoding** status and cannot be played back.
- Your device cannot play back WMV files.

To view archive files:

1 Click **Archives**.

2 To view the detailed information of the media files, click **Details**.

To search in archives or live streaming:

1. Click **Archives** or **Live Streaming**.
2. In the search field at the upper right of the screen, enter the search phrase and then click .

To clear the search result and return to the full view, clear the search phase, and click again.

To play an archive:

1. Click **Archives**.
2. Click a media file to play it.

If you log in to the Viewer portal anonymously, only archives that include **All_Users** in their **Allowed Users/Groups** appear in the Archives list.

To view a live streaming:

1. Click **Live Streaming**.
2. Click a live streaming to view it.

If your web browser is the Internet Explorer, you may be prompted **Display mixed content?** when you view a live streaming. Click **Yes** to proceed.

This happens because the Viewer Portal uses secured HTTP (https) yet the streaming URL doesn't. You can change the Internet Explorer's default security settings from **Internet Options > Internet > Custom level > Miscellaneous > Display mixed content > Enable**.

Reserving Meeting Recordings Using the Viewer Portal

You can log in to the Viewer Portal as either an administrator, or a user to reserve meeting recordings.

To reserve a meeting recording:

1. Click **Recording Reservation.**
2. Click **Schedule New Recording** on the right part of the screen.
3. Configure the following settings:

Parameter	Description
Subject	Specify the name of the reservation. Maximum length: 255 characters.
Description	Specify the description of the reservation. Maximum length: 512 characters.
Address Type	Specify the address type to call: • IP: IP address • E.164: E.164 extension • H.323 ID: H.323 user ID • SIP URL: SIP URL string
Address	Specify the address of the Polycom RMX system, or the endpoint you want to call. The Polycom RSS system dials this number to join and record the meeting at the specified time. Maximum length: 128 characters. **Note**: The system validates your input according to the selected **Address Type**.
VRR Name	Select a VRR to be used by the connection. **Note**: Only VRRs that have enabled the option **Recording Immediately** appear in the VRR list.
Start Date	Specify the date when the recording starts.
Start Time	Select when the recording starts. **Note**: The recording time must be later than your current system time. You can also select **Now** to start the recording immediately.
Duration	Specify how long the recording lasts.
Email Notification	Specify one or more email addresses to send a notification to upon the completion of the recording. Separate multiple email addresses with semicolons (;). Maximum length: 255 characters. **Note**: If you configured email addresses in the **Email Notification** of the specified VRR, notifications are sent to these email addresses also.

4 Click **OK.**

You receive an email notification (if set) upon the completion of the recording. You can also find the recordings in **Media > Archives**.

The recording reservation lists only pending reservations. Once a reservation is completed, or expired, it is removed from this list.

To edit a meeting recording reservation:

1. Click **Recording Reservation**.
2. Click **Edit** on the right of the desired reservation.
3. Modify the settings and click **OK**.

To delete meeting recording reservations:

1. Click **Recording Reservation**.
2. Select the checkbox on the left of the desired reservations.
3. Click **Delete selected** and then click **OK**.

Appendix A – Regulatory Notices

Important Safeguards

Read and understand the following instructions before using the system:

- Close supervision is necessary when the system is used by or near children. Do not leave unattended while in use.
- Only use electrical extension cords with a current rating at least equal to that of the system.
- Always disconnect the system from power before cleaning and servicing and when not in use.
- Do not spray liquids directly onto the system when cleaning. Always apply the liquid first to a static free cloth.
- Do not immerse the system in any liquid or place any liquids on it.
- Do not disassemble this system. To reduce the risk of shock and to maintain the warranty on the system, a qualified technician must perform service or repair work.
- Connect this appliance to a grounded outlet.
- Only connect the system to surge protected power outlets.
- Keep ventilation openings free of any obstructions.
- If the system or any accessories are installed in an enclosed space such as a cabinet, ensure that the air temperature in the enclosure does not exceed 40°C (104° F). You may need to provide forced cooling to keep the equipment within its operating temperature range.
- Do not use this product near water.
- Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lighting.

  SAVE THESE INSTRUCTIONS.

Regulatory Notices

USA and Canadian Regulatory Notices

This Class [A] digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [A] est conforme à la norme NMB-003 du Canada.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: This device may not cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense

In accordance with part 15 of the FCC rules, the user is cautioned that any changes or modifications not expressly approved by Polycom Inc. could void the user's authority to operate the equipment.

EU Regulatory Notices

This Polycom RSS 4000 system has been marked with the CE mark. This mark indicates compliance with EEC Directives 2006/95/EC and 2004/108/EC. A full copy of the Declaration of Conformity can be obtained from Polycom Ltd, 270 Bath Road, Slough, Berkshire, SL1 4DX, UK.

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

声明

此为 A 级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

A 급 기기 (업무용 정보통신기기)

이 기기는 업무용으로 전자파적합등록을 한 기기이오니
판매자 또는 사용자는 이 점을 주의 하시기 바라며 , 만약
잘못판매 또는 구입하였을 때에는 가정용으로 교환하시기
바랍니다 .

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Electrical safety advisory

We recommend that you install an AC surge arrestor in the AC outlet to which this device is connected. This action will help to avoid damage to the equipment caused by local lightning strikes and other electrical surges.

Special Safety Instructions

Follow existing safety instructions and observe all safeguards as directed.

Appendix B – Telnet and Terminal Commands

The Polycom RSS 4000 system supports system debugging from the command line. You can select one of the following methods:

- Connect your computer to the serial port of the RSS system, then use a terminal emulation program, such as HyperTerminal, for system debugging.
- Configure the system by using Telnet.

  Both methods use the same command format.

Before You Start

Before you can use a hyperterminal program, or Telnet service to configure your RSS system, you need to configure the application first.

Configuring a Terminal Program

You need to configure the port settings, such as:

- Port: COM1 (basing on the port used)
- Baud rate: 115,200 bps
- Data bits: 8 bits
- Parity bit: None
- Stop bit: 1

Furthermore, you may need to set some other parameters based on the simulation software used:

- No echo for local input
- The settings for the DEL and Backspace keys
- Enter/New line
- The simulation type for the endpoint: Automatic or ANSI

Enabling Telnet in Windows

Before you can use Telnet to configure your system, you need to enable the Telnet service first. Below is an example on how to enable Telnet service on Windows 7.0.

To enable Telnet on Windows 7.0:

1. From your computer, click the **Start** button. Select **Control Panel**.
2. Click **Turn Windows Features On or Off** under the **Programs and Features**.
3. Scroll down in the dialog box, click the check box next to **Telnet Client**.
4. Click **OK**.

To connect with Telnet:

1. Click the **Start** button. Type *cmd* in the search box.
2. Type *telnet* at the command prompt, followed by the IP address of your RSS 8.0 system.

Login

If you have completed all the above configurations and launched the terminal simulation software successfully, press the **Enter** key. The login interface appears.

The login interface shows all of the software information and you'll be prompted to enter the login password. Enter the login password and press the **Enter** key.

The factory default login password is POLYCOM (case sensitive).

If you entered a wrong password, you may be required to re-login to the system.

If you entered the right password, you are brought directly to the command setting interface.

Command Introduction

Help

After logging into the system, you may enter *?* or help after the prompt # to show the command prompt information.

- "< > " indicates an optional parameter
- "{}" indicates a required parameter
- "|" indicates a 1-out-of-N parameter

```
# exit


User logged off
```

Viewing Device Information

Enter *show* after the prompt # to view the current device information, including the system information, license information, interface information and IP address.

Viewing or Setting the System Time Zone

Enter *timezone* <*timezone* > after the prompt # to modify the system time zone setting.

```
   timezone <timzone>        Get or set the time zone value within [-12,+12] wi
th -/+, default is GMT+(0), e.g. timezone +8
```

Idle Timeout Setting

Enter *keepalive*<*timeout* > after the prompt # to modify the keep-live timeout setting.

Parameter	Description
timeout	Defaults to 120 seconds and can be modified to any value in the range of 5 – 600 seconds

[Example] Set the timeout time to 60 seconds:

```
# keepalive 60
current keepalive timeout value is 60 seconds
```

Reboot Device

Type *reboot* after the prompt # to restart the system. The system will show the prompt message *Are you sure?*. Type *Y* to restart the system, or type *N* to cancel.

```
# reboot

Are you sure reboot now? [Y for yes / N for no]
```

Resetting Password

Type *reset password* after the prompt # to restore the administrator user password for Web login to the default password (admin).

The system will show the prompt message **Are you sure?**. Type *Y* to proceed, or type *N* to cancel.

Restoring System Configuration

Type *reset config* after the prompt # to restore the following system configurations to the default value:

- System Config
  - IP Setting
  - System time
  - Recording Setting
  - Security setting (Ports and security policy)
  - Service Setting
  - Signaling Setting
- Admin
  - UI Customization (System name and default endpoint menu language)
  - Disk Warning

The system will show the prompt message **Are you sure?**. Type *Y* to proceed, or type *N* to cancel.

After resetting the system configuration, the system must be restarted in order for the new settings to take effect.

Cleaning Activation Key

Type *cleankey* after the prompt # to remove the existing activation key. This command is used to deactivate the RSS™ 4000 system.

The system will show the prompt message **Are you sure?**. Type *Y* to proceed, or type *N* to cancel.

Telnet Settings

Type *telnet {on | off}* after the prompt # to turn on/off the telnet session. For example, enter *telnet on* to enable telnet function.

The default setting is telnet on. If *telnet off* is entered to disable the telnet function of the Polycom RSS 4000, user can only use the serial port to perform above system setting tasks. The default telnet port is 23, which cannot be modified. The password and command operations for remote telnet login are identical to those for serial port login.

Password Modification

Type set *telnet password* after the prompt # to modify the login password for the **Command Setting** page.

This command is only used to change the login password for the telnet session and serial interface. It does not impact the Admin UI password.

```
# set telnet password

enter new password:
```

DTMF

Type *dtmf {on | off}* after the prompt # to enable or disable the system to respond to DTMF requests from the remote control. For example, enter *dtmf on* to enable the DTMF response.

File System

Type *fscheck {on | off}* after the prompt # to enable or disable the file system checking during the system startup. For example, enter *fscheck on* to enable the file system checking.

Ping

Enter ping <ip > {-n<count > } {-w<time > } {-l<size > } after the prompt # to check the network connection status.

Parameter	Description
ip	IP address of the destination host
-n<count >	Packet sending times, defaulted to 10
-w<time >	Waiting time, defaulted to 1000 ms
-l<size >	Size of the sent packet, defaulted to 32 bytes

[Example] Send the host whose IP address is 172.21.100.111 a Ping packet with the size of 1500 bytes for five times cyclically. The wait time is 1000 ms:

```
# ping 172.21.100.111 -n5 -w1000 -l1500

Pinging 172.21.100.111 with 1500 bytes, loop 5 times, wait 1000 ms.

1520 bytes from 172.21.100.111 : seq=1, ttl=127, delay=1ms.
1520 bytes from 172.21.100.111 : seq=2, ttl=127, delay=2ms.
1520 bytes from 172.21.100.111 : seq=3, ttl=127, delay=2ms.
1520 bytes from 172.21.100.111 : seq=4, ttl=127, delay=2ms.
1520 bytes from 172.21.100.111 : seq=5, ttl=127, delay=1ms.

send 5 packets, receive 5 packets, lost 0(0.0%) packets.
time is 5005ms, bandwidth is 12.1kbps
```

Network Settings

Enter the following commands after the prompt # to set network configurations:

set {lan1 | lan2} ip {dhcp | static <ip > netmask <mask > gw <gateway > } - set the IP address for LAN 1 or LAN 2.

set {lan1 | lan2} speed {auto | 1000 | 100 full | 100 half | 10 full | 10 half} - set the connection features for the LAN 1 or LAN2 interface.

Parameter	Description
dhcp	Automatically gets the address information through the DHCP server.
static	Specifies the static IP address information - Ip: IP address of the network port mask: subnet mask of the network port gateway: gateway address of the network port

Parameter	Description
auto	Auto negotiation mode
1000	1000Mbps
100 full	100Mbps full duplex
100 half	100Mbps half duplex
10 full	10Mbps full duplex
10 half	10Mbps half duplex

[Example 1] Set the IP address of the LAN1 interface to 172.21.103.29, subnet mask to 255.255.255.0, and the gateway address to 172.21.103.254:

```
# set lan1 ip static 172.21.103.29 netmask 255.255.255.0 gw 172.21.103.254

Reboot is require in order for the change to take effect. Reboot now? [Y for yes
 / N for no]Y

restart system ...
```

[Example 2] Set the 100M half duplex for the LAN1 interface:

```
# set lan1 speed 100 half


Reboot is require in order for the change to take effect. Reboot now? [Y for yes
 / N for no]Y

restart system ...
```

After you set the connection feature or IP address for the LAN interface, the system must be restarted in order for the new settings to take effect.

Shutting Down the System

Type *shutdown* after the prompt # to power off the RSS 4000 system.

The system will show the prompt message **Are you sure power off now?**. Type *Y* to proceed, or type *N* to cancel.

Checking Disk Space Usage

Type *df* after the prompt # to view the disk space usage of the RSS 4000 system.

The total, used, and free disk space are shown.

Index

A

activation
  product 47
activation key 4
Active Directory
  users importing 34
active directory
  configuration 33
archives 73
  backing up 46
  playing and downloading 74
  viewing 74

B

backing up
  archives 46
  system configuration 42
  user data 43

C

calendar
  configuration 35
certificate
  management 22
  removing 26
changing
  system font 17
changing initial IP 6
configuration
  calendar 35
  FTP server 44

D

Dashboard 40
diagnostics 29
dialing out to record 11
dialing RSS to record 13
dynamic archiving 77

F

FTP server configuration 44

G

gatekeeper settings 9

H

hardware status 41

I

importing
  Active Directory users 34
initial configuration 4

L

live streaming 80
  maximum capacity 83
logging in
  web interface 15

M

maximum capacity
  living streaming 83
multicast 83
multicast control 9
multipoint recording 66

P

password
  setting rules 30
PIN
  setting rules 33
ping 29
playing back 13
port usage 29
predetermined VRR 65
product activation 47

Q

QoS 27
quick code 80

R

recording
  settings 20
  templates 58
  using remote control 90
reserving recording
  using web portal 95
restoring
  system configuration 43

user data 45

S

security policy 30
setting
  system time 19
settings
  recording 20
SIP settings 36
SNMP 37
system configuration 19
  backing up 42
  restoring 43
system font
  changing 17
system Indicator 3
system logs 51
system overview 1
system time
  setting 19
system upgrade 46

T

Telnet
  enabling 104
transfer recordings to FTP server 73
TV interface 88

U

UI customization
  customization
    UI 49
unpacking and installing 2–3
upgrading system 46
user
  groups 57
  new 56
user data
  backing up 43
  restoring 45
user management 54
user permission 17
using
  remote control 88
  web portal 93

V

version
  hardware, software 17
viewing
  archives 74
VRR 58
  defining 62

W

web connections 41
web interface
  logging in 15
working mode 11